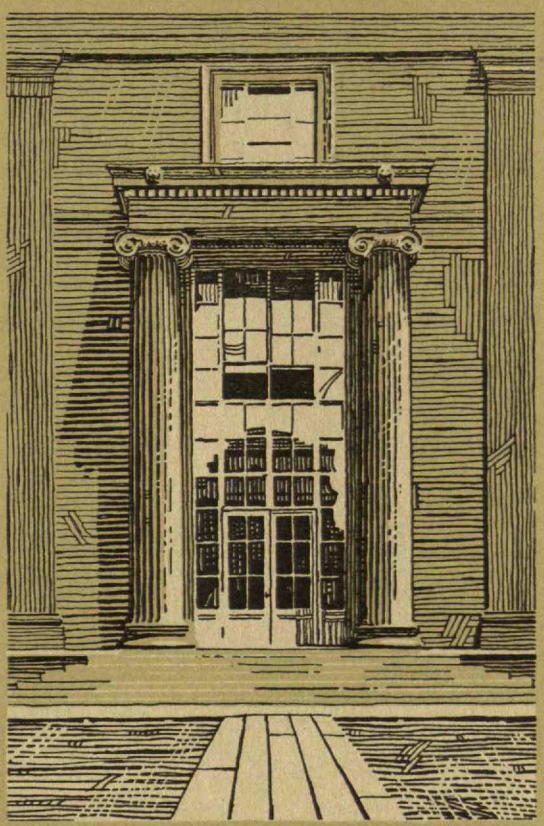
THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY



DECEMBER
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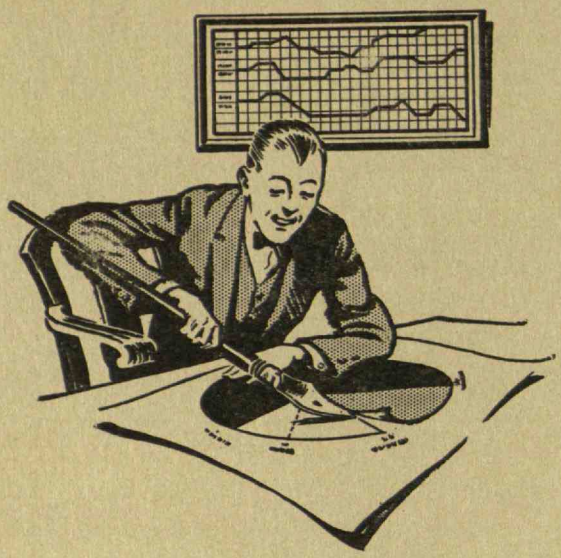

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Graphic pie enough to satisfy the hunger of a life-time; no end of graphic mountains to scale and toboggan down. That's what the man who loves to analyze graphs and statistical symbols can look forward to when he comes with the electrical industry.

Economic study is one of many branches in this broad field. If you have thought of electricity as limited to engineers, this other side of the picture will interest you.

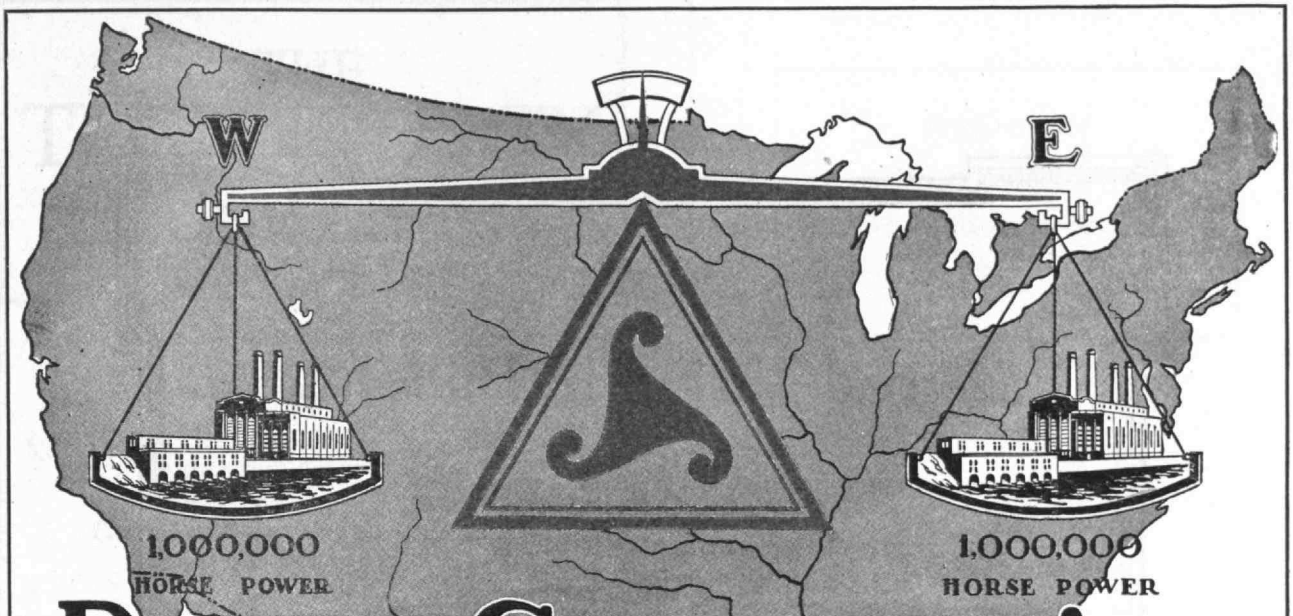
The commercial organization with its problems of distributing, selling, advertising; the manufacturing end with its opportunity for trained technical men; the legal and accounting branches—all this and more totals electrical industry.

It may pay you to keep this in mind against graduation.

Published in the interest of Electrical Development by an Institution that will be helped by whatever helps the Industry.

Western Electric Company

This advertisement is one of a series in student publications. It may remind alumni of their opportunity to help the undergraduate, by suggestion and advice, to get more out of his four years.



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RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Published monthly, from November to May inclusive, and in July at Cambridge, Mass.

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Contents for December, 1924

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Thomas B. Booth, '95, *President*

Orville B. Denison, '11, *Secretary-Treasurer*

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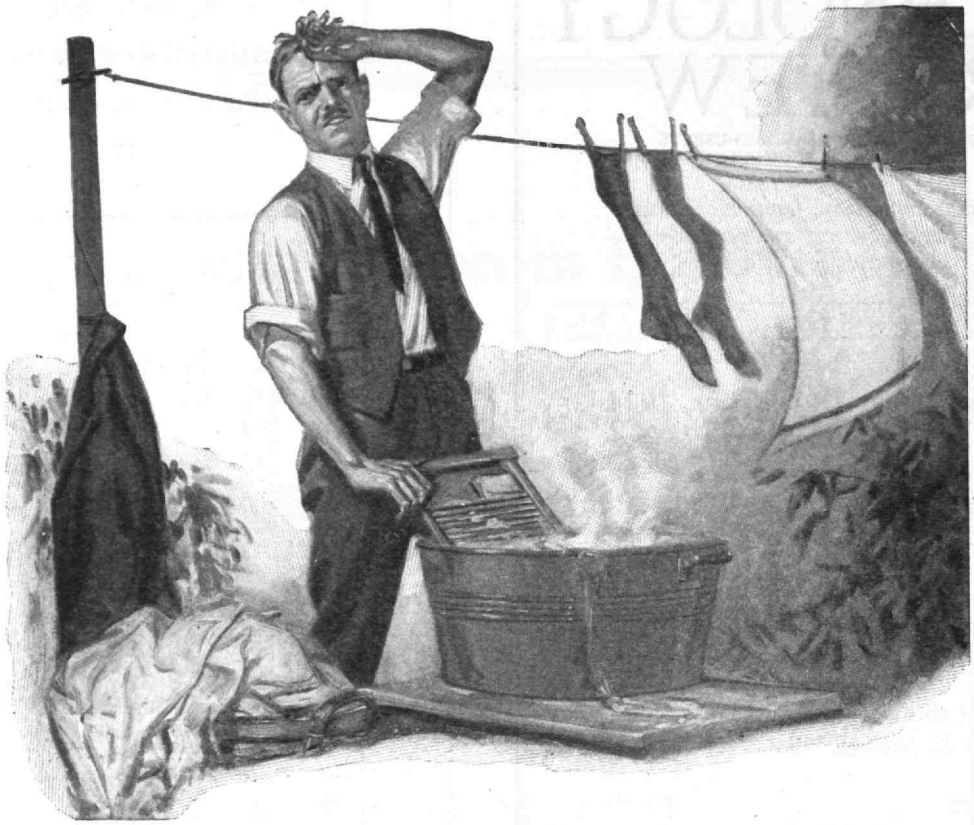


If father did the washing just once!

If every father did the family washing next Monday there would be an electric washing machine in every home before next Saturday night.

For fathers are used to figuring costs. They'd say: "The electricity for a week's washing costs less than a cake of soap. Human time and strength are too precious for work which a machine can do so cheaply and well."

You will find this monogram of the General Electric Company on many devices that take the drudgery out of housework. Look at it closely and remember the letters G-E. They are a symbol of service —the initials of a friend.

GENERAL ELECTRIC

THE TECHNOLOGY REVIEW

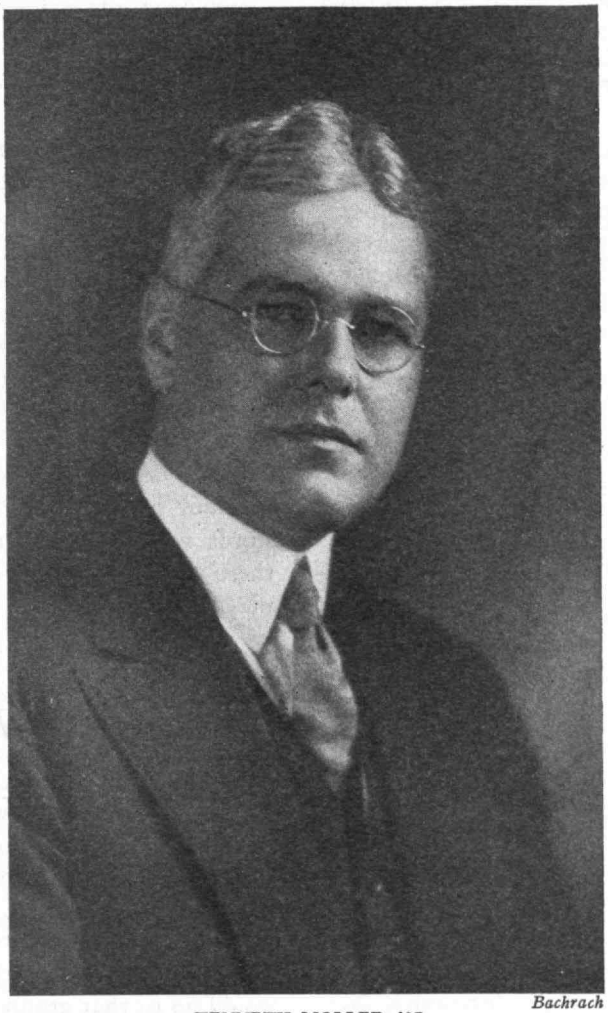
RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Vol. XXVII DECEMBER, 1924 No. 2

The Past Month

A COMMITTEE of the Faculty, some time ago appointed to investigate Course IX-B, General Engineering, and to make recommendations with a view to altering its somewhat pathological condition, presented, some days ago, its report, which has now been adopted by the Faculty as a whole. It seems probable that its stringent provisions will do much to bring Course IX-B to the position it should properly hold.

The Course is to be placed in charge of a committee of five Faculty members, including the Head of the Course as chairman. The committee is to have charge of laying out the programs of study. Any Freshman may enter the Course, but anyone who desires to enter after the beginning of the second year, must present for approval a general plan of his whole future course of study. After he has been admitted under these conditions, no student may change his program without authorization from the committee. No student is to be allowed to transfer to Course IX-B after the first year without a clear record in all his previous work. Here, of course, are the teeth of the plan. But even further, no student is to be allowed to graduate from Course IX-B without having completed a full year's work after entering the course. In other words, the course will no longer be the last straw at which a drowning student may clutch. The days of the idler are numbered.



Bachrach

KENNETH MOLLER, '07
who succeeds his classmate, Alexander Macomber, as Chairman of the Five Year Reunion Committee

ORVILLE B. DENISON, '11, presented, at the first Council meeting of the year, the audited figures from the report of Arthur T. Hopkins, '97, whom Mr. Denison this fall succeeded as Secretary-Treasurer of the Alumni Association. The statement indicated, apparently to the surprise of most Council members, that upon the close of the last administration the Alumni Association found itself faced with a total deficit of approximately $11,900. During the same period of time covered by this report, The Review turned in to the Alumni Association a profit of about $3000, thereby reducing the year's operating loss of the Association to a net figure of close to $8900. The somewhat startling magnitude of this sum even after The Review's contribution seems to be due largely to the incomplete financial provision made for the enlarged activities upon which the Association embarked in July, 1923, with the appointment of a full-time Executive Secretary. The new administration, with Thomas B. Booth, '95, as President, and Mr. Denison as Secretary-Treasurer, is now engaged upon the difficult task of retiring the obligations bequeathed to it.

DR. Charles Fabry, Professor of Physics at the Sorbonne, who is this fall delivering a series of lectures at the Institute upon Light Interference Phenomena, has just been announced as a winner of the triennial Osiris prize of 100,000 francs given for the most remarkable discovery in science, literature, art or industry. Professor Fabry received the award for his invention of an interferometer for astronomical use. Canny investment of funds by the custodians of the prize made possible two bestowals this year, and Professor Fabry thus shared his honor with Jean Richepin, the poet.

AS The Review goes to press, decision is imminent upon the question of the number of terms into which the scholastic year at the Institute shall be divided. The battle has long raged and some acrimony has developed over the question whether the year shall consist of three or of two parts. The general opinion of the student body seems to favor the present three term division. Apparently the opinion of the Faculty, although somewhat more divided, tends toward a return to the semester basis. With the issue so closely contested it is unwise to predict at this time what its forthcoming decision may be.

President Stratton's Illness

On November 19, a few hours before this page of The Review went to press, the following brief statement was released to the newspapers:

"Pres. Samuel W. Stratton is in Washington, where he will shortly undergo an operation for gall stones. It is probable that Dr. Stratton will be absent from Cambridge for about six weeks. He went to Washington very unexpectedly for consultation with his physician, who decided it necessary that he remain for this operation. The exact date for the operation has not yet been decided upon."

Further information is not at the moment available.

KENNETH MOLLER, '07, has been announced to succeed Alexander Macomber, '07, as Chairman of the Five Year Reunion Committee. Mr. Macomber, who accepted the position last spring, has been forced to resign through pressure of business. Mr. Moller, who takes his place, is the Boston manager of the Lockwood, Green Company, Engineers. Mr. Moller is expected to reveal plans of his committee for the first time at the 109th meeting of the Alumni Council, on November 24.

A WELL-EDITED volume, neatly bound in cardinal and gray, serves to contain the thirtieth anniversary report of the Class of 1893, just published. The report reveals the interesting and encouraging fact that one of every nine of the men who were graduated from the Institute in that class, has achieved sufficient renown in his chosen field to have his name placed in "Who's Who in America." The report further contains class records, a detailed account of the Thirtieth Reunion of the class which was held in June, 1923, and a sketch of the class dormitory which is now completed and housing its 80 men.

The book represents in great measure the work of Frederick H. Fay, Secretary-Treasurer of the class, and his secretary, Mrs. M. A. Plummer. The other officers of the class are President, Francis W. Fabyan; Vice-Presidents, Henry A. Morss and Frederick N. Dillon; and Assistant Secretary, George B. Glidden.

WHEN the gales of the recent national election had subsided, and the humble citizen mariner was able to look about again on comparatively untroubled seas, he might observe afloat on one of the ships that rode staunchly through the storm, a Technology Alumnus. Coleman duPont, '84, was elected to the United States Senate from Delaware. This is not General duPont's first term in the Senate, since a few years ago he was appointed to fill an unexpired term. His election at this time is sufficient tribute to his activities when previously in office.

TECHNOLOGY had as its guest during the past month a distinguished German physicist, Dr. Otto Oldenberg, who came to the Institute for two days to deliver lectures on "Phosphorescence and Fluorescence Phenomena." Dr. Oldenberg, who is associated with Prof. J. Frank at the University of Göttingen, has specialized in this field. The lectures were in English.

FRIENDS of Technology, who are also readers of the *Boston Herald*, were recently charmed to see, peering forth from beautifully engraved wreaths of one sort and another, the smiling countenance of Prof. Robert E. Rogers. Along with the picture of Professor Rogers were photographs of singers, violinists and saxophone players. The answer is not that Professor Rogers has gone into music but that he is broadcasting a course in American Literature via *Herald-Traveler* radio station, WBZ. Every Monday evening, the casual passer-by in the Brunswick Hotel studio may see him seated at his microphone pouring forth the words which, transmitted by wire to Springfield, are there turned loose upon the air, that he who listens in may learn.

Editorial Comment

"Back Bay Vice"

If there were a Pulitzer Prize awarded to the group of individuals who achieved during the course of the year the most mistaken, clumsy, inept, mischievous and unpraiseworthy publicity for themselves and their cause, beyond doubt the next bestowal of it would go to that group of student "investigators" and their sponsors who issued on November 13 the report on what is now headlined far and wide as "Back Bay Vice."

Just as every community must count upon being saddled with its lotharios, so must it endure its quota of the Unco Guid. Of these latter, students at Boston's score of colleges have produced their share, and these, in turn, have produced a report — a document of

luscious whispers to the effect that among their number vice stalks rampant, and must be checked. Why will the college authorities do naught to save the erring brothers? Item, gambling. Specifications, none. Item, drinking; specifications, none. Item, immorality, with context to indicate its particular form; specifications, (1) in houses where live students of both sexes a frequenting of one-another's rooms is not unknown, and (2) when disrobing, students sometimes fail to pull down the shades.

It is proposed in the estimable document, that hereafter the Deans, or other luckless officers of Boston's collegiate schools, see to it that the shades are pulled down. Similar proposals have, of course, been made before. But this one is unique in that it is said not to emanate from some nervous elder who does not care for the spirit of today's youth, but from a group of the very youths themselves. Therein lay the headlines.

Now it is not to be denied that moral failures among Boston's student population sometimes extend beyond the failure to pull down shades. This student city that exists within Boston contains, at an estimate, some 50,000 men and women — a population, in other words, as large as is possessed by such cities as Quincy, Mass., or Binghamton, N. Y. Few intelligent people would believe that every inhabitant of one of these cities lives, or could be forced to live, according to a moral code sanctioned by a Christian Endeavor association. Fifty thousand people are simply too many. So, probably, are fifty. Yet the impossible seems now expected of Boston's student group. At any rate, they have been measured by the Y. M. C. A. tape-line, and have fallen short, whereupon shock and horror are apparently let loose.

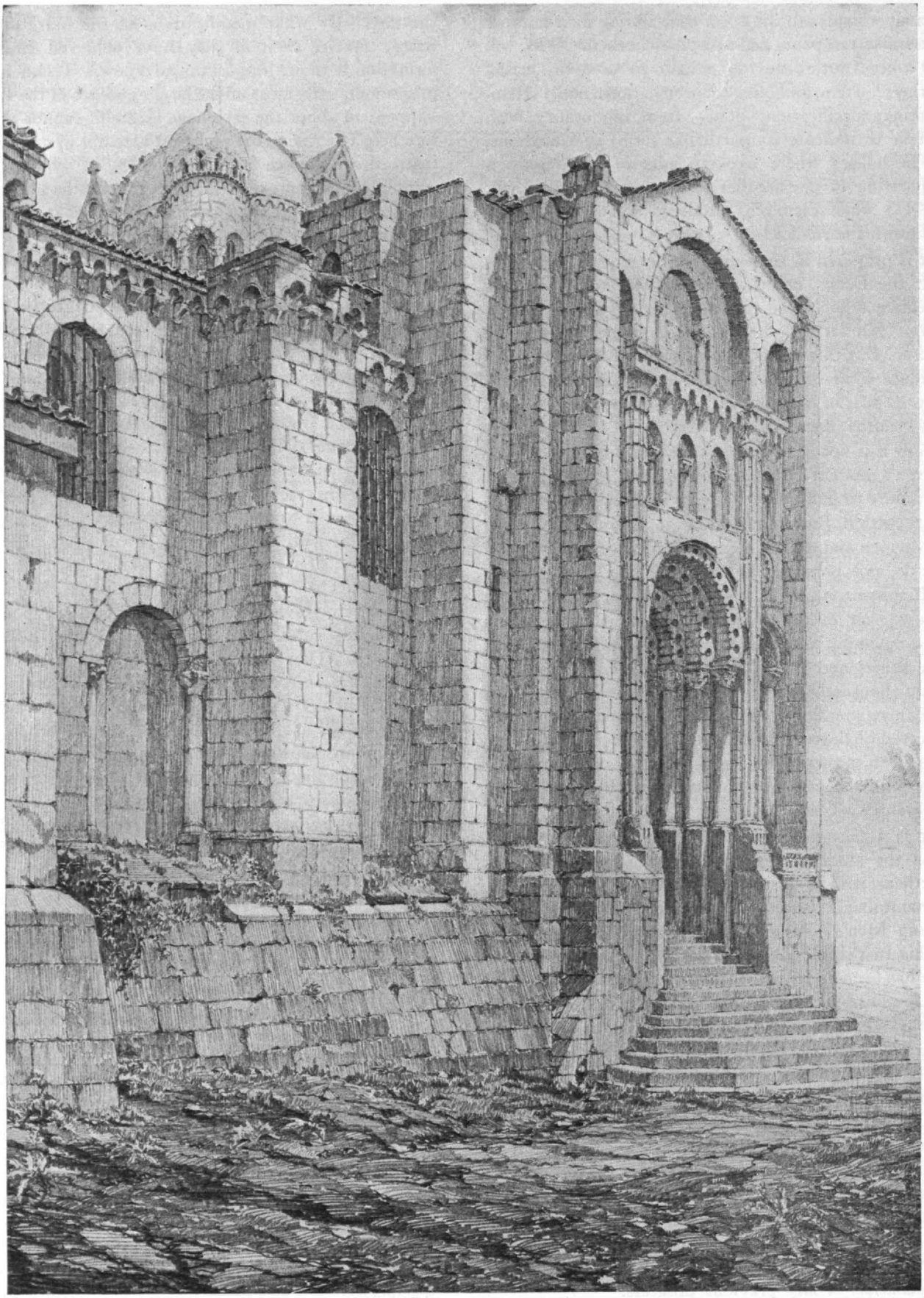
It is a matter of record that most of the "work" upon the student "report" was done by students of Northeastern University, which, we remind our Alumni, is maintained, housed and conducted by the Boston Young Men's Christian Association. The president of this Institution is Mr. Frank Palmer Spear, and to him has been assigned (with no public denial from him) the responsibility for having "turned the problem over to the students." Although it would be unwise to take Mr. Spear to task upon no firmer basis than newspaper report, it may at least be said that whoever the responsible official may have been, he was guilty of a bit of almost incredible folly. The extraordinarily delicate and fussy task of extramural student supervision does not supply an appropriate playground for amateur report writers, nor yet for the all-too-practised publicity agent. Its exploitation by these two groups has resulted, it is safe to say, only in the vexation and embarrassment of other college officials, and a total cancellation of any previous progress.

Officials of Northeastern University have more than once made it their boast that they know what their students are doing during all the twenty-four hours of the day. By what modifications of the old Russian Secret Service System they have achieved this information it is not important to know. Technology, in common with most of the larger colleges of the East, happens to abhor the espionage idea and cannot therefore help but resent the apparent attempt of any other institution to force it into a policy of which it so completely disapproves. Since its foundation the Institute has proceeded upon the assumption that students mature enough to enter its classrooms were also mature enough to be treated as responsible men and women. Nothing yet has happened to prove that general assumption false, nor to persuade the Institute that the absence of a rigid paternalism in student control could be sensibly interpreted as a disinterested *laisser faire*.

But now come these "student" investigators and their sponsors to ask Technology, as they have asked Harvard, and Boston University and other institutions, Why are you doing nothing to save some of your students from damnation? Now come newspaper reporters to interview administrative officers. What are these poor men to do? They may answer "nothing to say," whereupon the reporters write what seem to them good. They may say, "I'm sure that none of *our* students . . ." and so on, whereupon they make it immediately evident that they are either hypocrites or unsophisticates to a degree that unfits them for their jobs. They may say "The private lives of our students are no concern of ours so long as they reflect no discredit upon us", which, being quite true, nevertheless brings a glissendo "Ah-ha!" to the lips of the believers in knowing what students do twenty-four hours of the day. No answer will be sufficient to reassure the disturbed public.

No answer ever is sufficient to quell a malicious disturbance. Newspaper report has already spread the impression countrywide that the Institute, like Harvard, like, even, (save the mark!) Boston University, is a hotbed of vague but revolting crime and that its students are youthful dissolutes. Yet the Institute has data enough to be well aware that this is a lie, and that there can never be a successful attempt to change the informal, friendly relations of teachers and taught in favor of a system of informers and stool pigeons, whereby a handful of transgressors against a few proprieties could be brought to book at the cost of an insulting scrutiny for the rest of the student body. It can only wish that it could make this truth catch hold in other quarters.

Good character is supposedly a consideration in the award of a university diploma, but of character one learns little when one boasts of watching it for twenty-four hours of the day. A second-story man in Sing Sing has a record unblemished of burglaries during his residence . . . But never mind. The "report" is out and it will be a long time before there is again celebrated with such pomp and circumstance so pretty a wedding between the ancient houses of Grundy and of Malaprop.



ZAMORA
South Transept of the Cathedral
From a pencil sketch made in Spain by H. L. Seaver

Through Latin Europe with Ford and Kodak

The one makes possible and the other records a springtime sojourn

TOLEDO

By HARRY W. TYLER, '84
Head of the Department of Mathematics

NINETEEN years since our last sight of Europe have given us an eager desire to return if only to see ruins. Spain and Rome as yet unknown are the poles of the magnet. France and Switzerland the body. How shall we travel? From bicycles once enjoyed, maturer years and greater distances now discourage; rail and omnibus are too conventional and restrictive. Why not a Ford? Abundant obstacles are gradually surmounted. The first cost in Paris is about $700 for touring car with "starter," an unusual luxury in France — gasoline is two to three times the price at home, the unavoidable formalities are legion. There must be a carte grise for the car and a carte rouge for the driver, one must pay 65 francs in one place and 130 indirect tax in another; each step means waiting in line and giving a lesson in American French to a new official. The Massachusetts driving license, received at first with frigid scepticism, finally saves an examination. One's photograph is duly attached. On April 1 — significant date — our temporary chauffeur leaves us at the southern edge of Paris traffic headed for Bordeaux. Long forgotten knacks and motions somehow come back automatically. Once we're on the open road with bits of sunshine and all sorts of attractions in the spring landscape, our exhilaration is complete. We exult in our escape from the great city and pity our shipmates who stay there or travel by rail. All the road is ours most of the time. Outside the infrequent towns we meet perhaps four cars per hour. We had rashly planned to drive via Barcelona but the omniscient Michelin itinerary (so benevolently furnished all tourists on request) warns us that all the good roads in Spain must lead to or from Madrid, so we make it our first objective. Though April, the temperature is near freezing, the clouds heavy, light showers frequent. We wear all our winter wraps and long, usually in vain, for fires in the inns. Those inns are everlastingly quaint and the improvised shelters for cars amazing. No examination in driving could be more searching than the practical test of getting into their cavernous recesses and out again. In the tiny village of St. Aignan we find a monument to American Soldiers, for this is the region where they camped after landing at Bordeaux. Many a cottage has still its sign for quartering so many men or horses.

Coming into Bordeaux we are stopped at the city-gate by an official who measures our gasoline. After some discussion due in part to our not stopping more promptly, we are taxed 5 centimes and allowed to proceed. Beyond Bordeaux the landscape is interminably flat, partly marsh, but largely evergreen forest, each pine with its little pail attached for turpentine. We reach the coast at the charming village of Arcachon, a sort of miniature edition of Biarritz further on. At Biarritz, the vegetation has changed to semi-tropical luxuriance. Even more appealing to us than the cliffs and beaches and more artificial attractions, are the glimpses of the westernmost Pyrenees stretching into cloudy distance to the south. We reach the frontier of Spain at Irun, our documents are scrutinized, we part with sundry pesetas (the usual coin, a douro, is 5 pesetas worth at present 67 cents and the size of an American silver dollar). France has been foreign, Spain is unknown, its language a mystery. Beyond San Sebastian with its romantic little harbor and potential luxury, it's a wonderful shore drive, skirting grim cliffs along the Bay of Biscay. Turning south at Deva we seek our first Spanish lodging at dark in Vergara. Missing the supposed hotel, we ask directions from a wayfarer. He answers our French in good English, shows the way to the inn, returns after dinner, and again in the morning, when the motor won't start. He has been in London and hopes to visit the United States. We continue ascending among rugged snow peaks running up to 8000 or 10,000 feet. It is Basque country with quaint costumes for animals as well as men. Oxen wear a great mass of sheepskin between their horns as if fearing attack.

Towns and villages are far apart; a wild defile we have just come through is spanned by a gorgeous rainbow. The country flattens but we are still high at Burgos with its marvellous cathedral and its myriads of boys, each more determined than the rest to show us our hotel and the sights of the city. Our best defense is to select one to keep the rest away. Madrid is 160 miles away — too far after a late start in bad weather. We halt in Aranda, 50 odd miles from Burgos, the only possible shelter — if indeed it may be called possible. The inn is decent, the people friendly, but Spanish is their only tongue and the menu is not less Iberian. Another car arrives with abundant snow on the running board.

Madrid, in the late afternoon with traffic at its height and a hotel to be sought in the congested Puerta del Sol. Everybody else's windshield bears a placard, "Tiene diestro," for the rule of the road has just been reformed. Depositing passengers and luggage and piloted through crowded streets to a distant garage the driver parts from the Ford with unalloyed satisfaction. This is not a story of Spanish art, high or low, nor of customs or culture, but it may be remarked in passing that Madrid is the noisiest place we ever tried to sleep in, that the Prado pictures are incomparable, that the worst features of the Spanish menu are neither garlic nor garbanzos, but the late heavy dinner at nine, that we never had such

FLORENCE

Glimpsed through trees from Fiesole

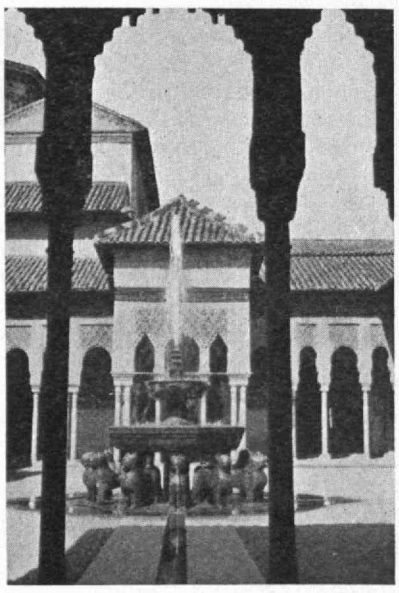
oranges before, and that we did *not* see a bullfight. Arriving two days before Palm Sunday, it was our obvious duty to go to Seville for Holy Week. Unfortunately everybody else was either dutifully there or on the way, with lodgings engaged months ahead at fabulous prices. Not anxious for just that variety of religious experience we set out once more for mediæval Toledo, 70 miles south. The ride is not remarkable unless for the numberless ancient wells at which water is pumped by a donkey travelling in a small circular track. Toledo is grandly situated on an irregular hill almost surrounded by the turbid, rushing Tagus. The inevitable boy leaps on our running board as the pilot boards the ship and guides us up one steep grade after another into the tortuous lanes of the old town, each narrower than the last. At the third hotel we find quarters, and the car is navigated to its shelter through a series of passages where pedestrians obligingly flatten themselves into doorways, dogs scuttle between the wheels, and no other car happens to be met. The streets of Old Boston are broad, straight and level compared with those of Toledo, and the town is a joy to the antiquarian or the artist. Of untold antiquity, it is almost unspoiled. The railroad halts at a discreet distance outside, — as motors also should.

SEVILLE
The Giralda

The two old stone bridges across the Tagus are a special joy — in contrast to certain bridges nearer home — and one of the best things in our three days there was the cross-country walk, out by one and back by the other. Noon of Easter Sunday finds us ready to depart. In an evil moment we yield to the temptation to return to Madrid via Aranjuez, where wonderful asparagus and a royal palace may be seen. The road certainly looks good on the excellent Michelin map; it continues to look good for some 10 of its 30 miles, after which it changes gradually but completely to a diabolical labyrinth of petrified ruts, deeper and deeper till out axles scrape the ridges, while the passengers willingly accept an invitation to walk for the sake of imperilled springs. Efforts to ascertain whether it would be worse to go forward or back are unavailing. In about ten miles there is improvement and in five more we are on a real road again.

The return to Madrid is succeeded by two weeks in southern Spain under more conventional conditions. From Madrid again we set out in early May for the French Pyrenees with halts at Avila, Escoria Segovia, Burgos, and Logroño. At the walled city of Avila we just miss John Taylor Arms, '10, who is making etchings of Spanish cathedrals — not so agreeable as it sounds, when one must work for hours on a sun-scorched roof and then pay for broken tiles. Crossing the Guadarrama Mountains, we climb to some 5000 feet above the sea by a fairly heavy, not too smooth, zigzag grade. Around the corner just ahead plunges a Ford beyond control, turns completely over in front of us with its two occupants buried, and wheels whirling tragically in mid-air. The two are dragged out not much the worse and we survive our shock to reach Segovia with its tremendous Roman aqueduct, about which the city seems a modern excrescence. Its picturesque topography rivals Toledo.

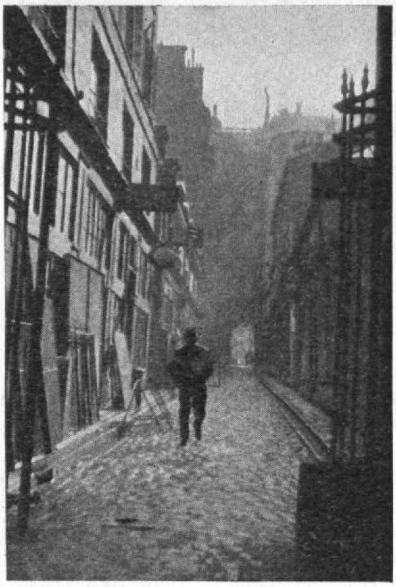
The next day brings our prize adventure,—almost worthy of Cervantes' knight. On a level open road appears a most bulky load of sheepskins drawn at a leisurely rate by a string of mules. As we approach they turn out seasonably if not quite enough. Only as we are at close range do we discover that they have no driver and that they have given us all the room mules think necessary, regardless of the stone piles which prevent us from turning out at all. We can't back quickly enough; the windshield and the sheepskins meet and stop, the wheels so close that we can move neither way. In the distance appears the driver running from some place where thirst is quenched. He addresses the animals in Spanish, which they, if not we, can understand, and ultimately maneuvers his load free without losing any of it or removing much of our enamel. Well indeed that his load was sheepskins. Too many drivers in Spain are addicted to sleeping on their jobs or else to abandoning them altogether, to the grave concern of the motorist. This particular region we think rather tame when suddenly the landscape opens before us and we are looking across a sinuous canyon at Sepulveda, quite as wonderful in its way as Segovia or even Toledo, but unknown to railroads or Baedekers.



ALHAMBRA
Court of the Lions

San Domingo de Silos is a monastery nearly 40 miles from Burgos and out of our way, but we have been urged not to miss it. Arriving at midday while the monks are at luncheon, we have leisure to lament the untimely end of the village dog who has just committed suicide by throwing himself under our wheels, whose owner has been perhaps more than consoled by the present of a douro. We are apprehensive of other canine sacrifices on our way out, but the financial inducement seems not to have become public and the dog population remains redundant. The ancient monastery long vacant was occupied some years ago by Benedictines expelled from France. They have passed on but a French tradition persists and we are entertained with gracious

hospitality. Our special host, a most agreeable and much travelled brother, shows us the varied treasures of the monastery and conducts us about the village. The library has books and periodicals from many lands and there is a natural history collection, but the chief treasure is the beautiful double cloister, one of the finest in Europe. We yield to the temptation to spend the night — one of us in great comfort in the monastery, the rest in a neat village house in the story over the goat. As members of the dangerous sex, the rest may not even enter the pleasant garden of the monks, with its nightingales, flowers and strawberries. As we say reluctant farewells in the morning in comes the daily Ford which connects this mediæval spot with the outer world. Everywhere in northern Spain one finds not merely Ford cars, but others of American origin, and service stations. The roads, while not quite equal to the French, are surprisingly good for such a thinly settled country. Climbing one day, mile after mile in hot sunshine, we arrive with steaming radiator at a tunnel piercing the height of land. A group of gesticulating peasants halt us and then disappear. We're glad to cool off but becoming impatient after a while, explore the tunnel. The reason for our halt is clear; it's an alternating current tunnel and we're waiting for a slow procession of oxen to come through. Emerging at last on the other side, we find ourselves on the brink of a tremendous descent by a series of long zigzags which we can trace far below. Crossing provincial frontiers in Spain often means inspection by a pair of armed civil guards in patent leather hats, with the payment of a fee, but these guards are really civil and give one a feeling of security.



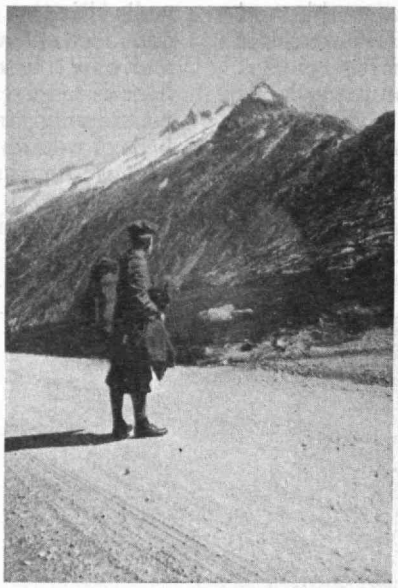
SOMEWHERE IN SPAIN
Study in cobbles and scaffolding, worthy the pencil of a Chamberlain

Most of our five weeks in Spain have been hot sunshine even at considerable altitudes. Now in the French Pyrenees, clouds, mist and even rain appear. The spectacular Route des Pyrenées skirts the mountains from Biarritz to the Mediterranean, though busses aren't yet running. Between St. Jean Pied de Port, as picturesque a frontier fortress-town as its name would suggest, and Mauléon with a lovely ivy-draped castle ruin, our road winds higher and higher into a low cloud so thick that we put on lights. Continually we think we've passed the crest only to find the car won't coast. It's a real relief to descend into clear air of the valley, though we've missed the wonderful views expected. Pau is not quite up to our high expectations, and Lourdes, naturally more picturesque, is so much a commercialized resort for its throngs of pilgrims that we hasten through to Argelés, a charming mountain village with beautiful snow peaks in various directions. Cauterets lies much higher and the approach is so weirdly serpentine that we take the tram for a change and have a fine half-day tramp almost to the Spanish border to complete the change. Gavarnie is the real climax of the Pyrenees and hither, after some persuasion of back-seat passengers, we drive. We start at 1500 altitude, traverse a rocky gorge, then climb to 4500 feet. At the village we find ourselves facing a grand mountain amphitheatre perhaps three or four miles along its axis and a mile across, the nearly vertical walls rising to an irregular cloud-draped crest 8000 to 9000 feet above sea. Back of the cliffs are snow fields and over the rim pour many lovely waterfalls. The floor is a mixture of stunted trees, bright green turf, meandering streams, not easy to cross, and gorgeous beds of wild flowers. Leaving Argelés via Lourdes with a pause for the grotto and the pilgrimage church, we make a noon visit to Bagnères-de-Bigorre, with its interesting and elaborate bathing establishment. The hot and cold baths here have been in use from the time of the Romans. Bad weather follows and the sinuous mountain roads begin to lose something of their pristine appeal. It's not too easy to climb mile after mile, it's monotonous even to descend interminably. Hairpin curves are interesting as stunts and harmless enough when no other car is coming around on the wrong side of the road without signalling, but although cars are few there is such a thing as too much dependence on their absence. So we decide to leave out sundry parts of the route as to which the expressions in the Michelin itinerary are more eloquent than reassuring and steer for Carcassonne. On the way are St. Bertrand de Cominges, Mirepoix and the Mas d'Azil grottoes. St. Bertrand is a mediæval walled village perched on the top of an irregular conical hill and crowned by a fine old church. The mere words do it no justice, but may illustrate the sort of thing one can do when travelling by car that would be rather out of the question otherwise. Mirepoix on the other hand is a walled village of the plain, with most curious arcades under the upper stories of its timber and plaster houses.

We begin to wonder if we have passed the sign for the grottoes when, as we approach a high rocky hill, we discover that our road follows the river into the hill instead of going normally around it. The rock roof is none too high, but there are electric lights, so it seems safe to enter. The irregular natural tunnel or open cavern with various side passages is perhaps a quarter mile long. In other caverns of this region the *National Geographic Magazine* has recently reported discoveries of abundant prehistoric remains.

Carcassonne at last. The ancient Cité is a tremendously fortified eminence with remnants of population, a fine old church, and a fine new hotel. The fortress contains strata of Saracens, Visigoths and Romans, the whole marvellously restored by Viollet-le-Duc — walls and towers, moat, portcullis and barbican, apertures for arrows, spouts for boiling oil and melted lead. The direct road to Montpellier is bad, so we leave by a detour through the Black Mountains. Again a zigzag climb, almost but not quite into the clouds; suddenly we seem to be on a washboard road. We have at last the first puncture of the tour. Following a small river we see on our right a most picturesque old bridge with a lofty almost semi-circular arch. Crossing on foot we climb into the little city of Olargues, our route leading us between a dismal series of cavernous hovels beside which real caves seem light and airy. The more modern square above is not at all bad but we seem to have come through something close to the "dark ages."

Montpellier is a fine little city with parks, and architecture, trolleys and movies. There is nothing to detain us except the unfortunate French habit of closing banks from 1 to 2:30. Here we're near the Mediterranean. Our next town, Aigues-Mortes, was once indeed a port of embarcation for the Crusades, though now accessible only by road or canal. As to fortifications, it vies with Carcassonne; but topographically it's square and flat. The smell of the sea on the hot summer day draws us on to Stes. Maries de la Mer, where three Maries of biblical note sent to sea from Italy came to land some 1900 years ago. We happen to arrive on the eve of the annual pilgrimage by which the landing and sundry attendant miracles are commemorated. One of the Maries had a servant from whom all gypsies are descended and hither they come from far and near with wagons, animals, children and camping paraphernalia. While we're at afternoon tea an elderly person of most battered and disreputable aspect gives a sleight-of-hand show with three canes—a performance more notable for excessive effort than for achievement. As we start away in the car a singular uproar assails us from congregated pilgrims on all sides.. Luckily I use the brakes instead of the accelerator, for the unintelligible clamor is due to the fact that of three little urchins hanging on our rear one was afraid to let go. Think of kidnapping a gypsy child in broad daylight! Promptly exonerated by a courteous spokesman who assures us it was the boy's fault we are glad to seek shelter at Arles. The rival hotels are both crowded with guests drawn by the pilgrimage rites at Stes. Maries, but preferring to commute 35 miles rather than lodge there. We barely get in and lodge the car in a distant nook.



SCARCELY SPAIN
The author here considers a mountain in Italy

After a morning of amateur archeology appropriately ending with a Roman cemetery-avenue, we're on the road again for Les Baux, a remote rocky hill in a sort of wilderness which it dominates. This stronghold, once of international renown, instead of being masonry built on a hill is largely habitations and fortifications carved and excavated in the ledge itself. Anything more weird and less livable can hardly be imagined. Vines relieve it a little and the outlook over the plain is glorious. Then down and up other zigzags to a fine old Roman arch in the edge of forest and plain beyond the Æpilles of Tartarin — for we are near Tarascon. Then by devious ways up the Rhone Valley to the ancient walled city of Avignon with its huge palace of the exiled popes. In a Sunday morning shower we cross the Rhone once more, seeking the Pont du Gard. A quiet river with ledges and green wooded bluffs, between which is the magnificent stone bridge with three tiers of arches to bring fresh water from a distant source to the old Roman city, now the modern Nimes. It reminds one of the grand aqueduct at Segovia, but here the park-like setting is incomparably more beautiful than the Spanish city. We're back in Arles in time for the Sunday evening bullfight, impartially trying the other of the twin hotels.

A bullfight in a Roman arena sounds interesting, even if the sanguinary features have been carefully expurgated. After not quite endless waiting Taurus trots in, looking strangely immature and pacific, with horn tips heavily padded. In the elliptical arena he is received by a mob of young fellows like a baseball crowd at home — who tease him on all sides and precipitately vault or dive over the surrounding fence when their teasing takes effect. Sometimes they are assisted over by the padded horns, or stepped on unpleasantly, but that's the nearest approach to the tragic. Comic indeed are the frantic zigzag rushes of the bewildered creature, who seems to forget his savage intentions before he can quite execute them. Still more comic is the finale when a lively steer is admitted whose job it is to lead the "bull" out.

Marseilles is a city of rather slow and difficult access, considerably obstructed by traffic and with a long climb to get out. It's a pleasure to lodge in a pretty village inn on the beach at Les Lecques. Traversing Toulon we reach the village of Hyères, the beginning of the French Riviera. From here to Menton is a continuous panorama of blue ocean, picturesque cliffs and beaches, luxuriant gardens and fine villas, the latter mostly closed, for the Riviera season ends early. We lodge in Cannes and three nights in lovely Nice, commuting to Monte Carlo by tram. At last the new triptyque arrives and we drive over the Grande Corniche, past the stately ancient monument which still after nineteen centuries declares that here Rome ends and Gaul begins. In Menton, once a part of the principality of Monaco, we pay our respects to Edward Phelps Allis, '71, who has long occupied the Carnolès palace.

The entrance to Italy at Ventimiglia is impressive indeed. Stern cliffs threaten to crush the rash traveller or crowd the whole road into the blue sea. The French customs officer is singularly inquisitive as to how much cash we are taking away. The Italians admit us without demur and we push on through San Remo to our first Italian lodging in Porto Maurizio. We once knew a few rudiments of Italian; now after Spain we have only a queer and almost useless mixture of tongues, a sort of individual Esperanto. We know the word for gasoline and we manage to escape starvation. The roads are rougher and dustier than the French, there are continual grade crossings and on Sunday, at any rate, there is too much traffic for comfort. Towns and villages seem almost continuous and the passages through them are often trying, with blind corners and too-abundant children. Nearing Genoa the dust makes seeing trying, but a far worse factor is the change on entering the city from right-hand to left-hand meeting and the converse change at the exit. The Riviera ends at Spezia, 35 miles beyond lovely Rapallo, with many heavy grades between, on one of which our brakes and reverse completely fail. We're duly thankful to arrive safely, if not in our own car, and spend a day recuperating at the Hotel of Palms in Lerici. Next day, thanks to a road level at last, we reach Pisa. Providence was kind in permitting us to arrive safely in Florence with both foot brake and reverse still out of commission.

The motor tour has been on the whole an immense success. We have journeyed where and when we pleased, have seen incomparably more than from a stuffy train, and at moderate expense. We have, however, no wish for more mountain driving, nor for the midsummer heat and dust of Italian roads. So the car is driven through blinding dust to Leghorn for shipment to France. Unhappily three weeks afterwards comes a belated message that a too keen-eyed minion of the Italian customs has discovered that the engine number and the triptyque number are different. The owner is of course presumed to be violating his agreement to drive out the car that he has driven in. By dint of strenuous and time-consuming correspondence and interviews with consuls, bankers, dealers and forwarding agents he succeeds in the course of the next five weeks in getting the car into France and the customs deposit of 7200 francs into a depleted purse. Should the gentle (or other) reader ever use a triptyque let him be sure of his numbers. Should he drive into Italy let him remember that Fords and American cars in general are nearly unknown.

Getting the Most from Mostar

An interlude with Frank A. Bourne, '95, Art and the Police

Adventure may be had in Europe exterior to a Ford. When Frank A. Bourne, '95, returned from abroad this fall he made reentry to his native country accompanied by a fanfare from the Boston press. Mr. Bourne, it seems, had been arrested somewhere in Jugo-Slavia, held for an hour and then fined three dinars — or four and one-half cents — apparently for so innocent an act as painting a water color.

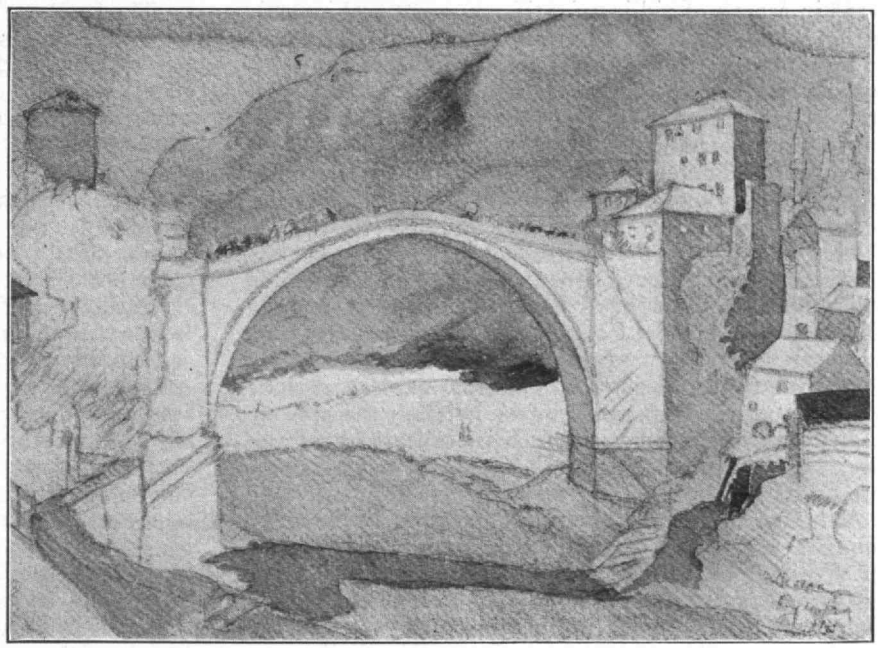
So one would gather from the cities journals. But what is the matter with reporters nowadays? What was the sketch of? What was it like? What, in it, inflamed the Jugo-Slavian police? To The Review goes the journalistic distinction of its premier publication. It appears below on this page, just as Mr. Bourne left it in his enforced haste, last August.

Said the artist, in a letter to the Editors of The Review:

"Why the newspapers should be so anxious to publish broadcast anyone's difficulties with the civic authorities and overlook many interesting things that other people are doing, is beyond me. However, on looking at the sketch that was so summarily interrupted by those military looking individuals in August last summer at Mostar, it seems to me that there is enough drawn to give the character of a very wonderful bridge. It is so near the main highway between Ragusa, on the Adriatic, and Sarajevo that it can be seen down the side streets, but I have known automobilists to go through and see what they thought was all there was of Mostar without getting as much as a glimpse of the bridge. It is wide enough only for foot passengers, and in this category four-legged donkeys must be included. The span of the arch is 92 feet. The valley between the two parts of the town is very rugged and the arch rises to a gable 65 feet above the river Narenta, making the bridge very steep on each side so as to allow room underneath for torrents. Across it there is a constant and picturesque stream of travelers dressed in costumes of many colors.

"Above and below this bridge are others in stone and in steel, wide enough for modern traffic. It is astonishing how tame they are, and unpicturesque. The iron one has already lost its title of Francis Joseph Bridge, which can be faintly traced where the letters were removed, when Austria lost control. A dozen of these steel bridges will evidently not have the life of the old mediæval structure. I believe the native name for a bridge is 'Most,' which would make me guess that the city of Mostar grew around the bridge.

"There may be a dozen mosques, and the red fez is everywhere. Perhaps a third of the women on the streets wear Turkish costumes and are veiled. It was startling to see several of these ghastly, hooded creatures with black veils crowded around my wife as she was sketching."



THE BRIDGE AT MOSTAR

As Mr. Bourne sketched it before the arrival of the police

Five Years of the Technology Plan

How the "Division of Industrial Coöperation and Research" has fulfilled its promise

By CHARLES L. NORTON, '93
Director of the Division

Our business — the business of the Massachusetts Institute of Technology—is that of educating young men for active work in the industrial walks of life. It is a business of teaching school and of teaching school with a group of scholars or pupils who are bent, either from inclination or because of some economic forces, in the direction of scientific and technological careers. It is true that the Institute as originally conceived had the second function of being a center of scientific and technical information in the community, but the first duty of teaching is so essentially our prime object that it seems clear that other functions may be weighed properly in terms of their ability to aid or hinder that part of our work.

This undoubted truth was seized upon some five years ago by a number of commentators when the famous "Technology Plan" was first formulated and tentatively put into practice. The essence of the Plan was a coöperative arrangement whereby industrial concerns in search of aid in scientific research and investigation were to pay the Institute stated sums of money as retainer fees in return for which the research staff and facilities of the Institute were to be placed with certain limitations at their disposal. This proposal was hailed on one hand as a great forward step in the linking of technological education to industrial affairs and on the other as an infamous pact whereby the Institute sold itself to the devil.

This Technology Plan of industrial coöperation has now been in existence five years. The Institute's obligations under it have been administered by the Division of Industrial Coöperation and Research. The five-year contracts made under the Plan in 1919 are now, with the close of 1924, about to expire, so that, with its future temporarily in the balance, the present is an appropriate time in which to take stock of the Division — to analyze its past functioning and to speculate on its future.

Although the precise genesis of the Plan is, curiously enough, not quite clear, it is unquestionable that Dr. William H. Walker, since 1894 a member of the Institute Faculty and from 1911 to 1920 Professor of Chemical Engineering at the Institute, was quite largely responsible for its inception. Dr. Walker, to whom President Maclaurin lent much encouragement, formulated the great part of the plan and became the first director of the Division. When Dr. Walker resigned in 1920, the writer of this article succeeded him and has been in charge of the Division since that time.

It should be noted that the purpose of establishing the Division was two-fold—first to raise money for the Endowment Fund drive, then in full process, and second to establish a coöperative effort with industry. The extent to which the first purpose was successfully carried out may be judged by the substantial sum of a million and a quarter dollars which the contractors, under the Plan, added to the Institute's endowment. In fact without the Plan it would have been necessary to meet "Mr. Smith's" conditions in some other fashion. The success of the enterprise from the second point of view needs to be judged carefully now that we are considering the indefinite extension of the experiments by prolonging the contracts beyond the five-year period.

The Institute's agreed-to services, summed up briefly, constituted, first, personnel work among the Alumni to secure for the purpose of the contractors special facilities for locating desirable men. Second, Technology agreed to make available its libraries to the representatives of the contractors, and to set up such administrative machinery as would make it readily possible for their representatives to get in touch with the members of our staff for purposes of consultation. And in the third place, Technology undertook to advise the representatives of the contracting companies where investigation of special technical problems or tests or researches might best be carried out. In such cases as called for work in the Institute's laboratories by members of the staff it was to arrange for carrying on the work upon payment of such sums as were mutually to be agreed upon between the staff and the company.

In order that the Plan may be considered successful we must assure ourselves of its proper reaction upon the two parties to the contract: the contracting companies and Technology itself. The writer and his associates, Professors E. B. Millard and H. W. Hayward, '96, have visited most of the companies, and with some have been in almost daily contact. As a result of these connections we found that the contracting companies divided themselves into three groups.

The first appears to be a group of companies which were not greatly interested in the success of our coöperative experiment excepting from its financial aspect. To put it briefly at the possible cost of accuracy, these companies have given us the money for our Endowment Fund, to encourage research, to help us train men for their branch of industry, and for the advantages of our personnel work. They have wished us well and have expressed frequently the hope that they might give us more, but are in no way interested in embarking with us upon a mutual enterprise for industrial coöperation and research.

Their reasons for this decision have usually been two. They believe that they run a greater risk of loss of patent rights and control of secret processes when their development work is done outside their own laboratories and that the possibility of results of tests and investigations is more likely to come to the attention of their competitors. They also hold a belief that a research staff operates with greatest effectiveness when it is able to devote its whole time to problems without interference by such duties as teaching. Probably it would be well to balance this objection against the well-known interference which the operating department of an industrial concern so often imposes upon the work of its research men, but nevertheless they hold it.

The second group of contractors have joined with us in our coöperative experiment originally to try out its working upon some problem which had appeared to be of great importance in their own industrial life. Having solved the particular problem for which they became associated with us, or having found it too difficult for solution, they are inclined not to maintain a perpetual contact with us industrially, but to bring to us from time to time and by special arrangement such problems as seem likely to benefit from a coöperative effort.

The third group of contractors have been in constant touch with us, have brought us problems of all sorts, have sought aid from us in matters of personnel, and have kept us busily employed in securing for them scientific or technical information from our libraries and files. These are the active "coöperators" under the Plan.

Putting the matter in the briefest possible space, it seems clear that such contractors as have made use of the Technology Plan have expressed themselves as counting it a successful coöperative effort with which they desire and intend to continue. It seems fair to judge the success of the Plan by the experience of the active contractors. From interviews and correspondence with them we have gathered a considerable number of suggestions as to modifications of the Plan. A large number of contractors have expressed the desire to be permitted to make a contract for one year rather than for five years, or to make a contract for each individual piece of work or research. It has been suggested repeatedly that there should be a greater uniformity in the amounts to be paid as retainers, and that the balance of the expenditure should go directly toward the expense and services rendered in connection with their problem. There have been exceptions to this in which it has been suggested that the money be devoted to general research in some one line rather than to a study of the particular problem of a single contractor. It has further been suggested that we restrict our contracts so that the members of our staff could be engaged upon the work of only one company in any one particular line of business at one time; that is, that the members of our staff be not asked to carry on investigations at the same time for industrial companies which are more or less actively engaged in competition with one another. It would seem that all of these modifications except the last could be made without any serious structural changes in the Plan as now established.

It is perhaps in order here to outline the methods by which, in general, work coming to the Division from the contractors is handled. A problem comes to us by correspondence or personal visitation, and is usually of one of four kinds:

1. It may be a personnel inquiry, a request for a man to fill a particular position either permanent or temporary. In that case it is referred to the personnel section, which in turn consults either with the heads of departments, whose acquaintance with the available material in the alumni group is very large and accurate, or refers to its own files of some 7500 names based upon the replies to the questionnaires which the Division has sent out to the Alumni, or in the case of a graduating class, to the students themselves.

2. The inquiry may concern the location and identity of material which is available in libraries. By means of our own library and with an excellent working contact between its staff and the staffs of other large scientific and technical libraries of the country, and with a well organized system of making photo stats or other copies, we have been actively engaged in supplying information varying from an answer which sometimes does not exceed a single sentence in length to bibliographies and compilations of many pages.

3. The inquiry may be simply a request for a routine test — a determination of the tensile strength of a rod or the analysis of a pigment or the determination of a melting point. These inquiries proceed automatically. Through the heads of departments or the members of their staff designated by them, the tests are made and reports are sent out directly by an individual member of the staff. For much of this work there is no charge, and the members of the staff find it quite possible to carry on these brief and isolated tests simultaneously with prolonged research without any appreciable added expense to them in the matter of time.

4. The inquiry may be concerning some complex problem, the undertaking of a research, the investigation of a process, or any similar matter likely to call for the serious and lengthy consideration of members of the staff or of outside experts or of both, accompanied by experimental work in the laboratories or in the plant of the contractor.

It will readily be seen that most of these have to be treated as special problems, but in general the principles of operation under which they are handled is as follows:

The Director of the Division and his associates advise with the contractor how, in their opinion, the problem should be handled, and after agreeing upon a general method, it is next decided to whom the work shall be entrusted. If its nature is such that it can be done by some member of the teaching staff, it is entrusted to him. If he needs special assistance he is authorized to secure it, the men engaged for this purpose being classed as research assistants, research associates, or industrial fellows. An agreement is reached in each special case as to the amount of money which shall be paid to the member of the staff as a fee for his active work or his supervision of the assistants. The

expenses for materials, light, power, gas, chemicals and assistants plus a reasonable overhead charge are met by the contractor. The overhead varies somewhat with the nature of the service but averages about 50%. Agreements are executed with the assistants and with the members of the staff engaged upon work of this sort, whereby the contracting companies are protected in any patent rights or possible secret processes which develop in connection with their work during the time when the staff is actually employed upon the task.

It will be seen that the Division acts really as a clearing house whereby the questions and problems of the contractors may be discussed, planned for and attacked in a prompt and efficient manner. Under these arrangements very large amounts of work have been done for the third group of contractors referred to above. Sometimes we have had for one contractor a dozen men working in our laboratories or in his plant at salaries ranging from $1500 to $4500 a year, and at the same time there have been on the average a half-dozen members of the teaching staff devoting a portion of their time to the problems of this one contractor. The work has resulted in publications of note which have been of credit to the Institute, and of material value to industry generally. The direct results to the contractor measured on a commercial scale have been most satisfactory. It seems almost beyond question that the coöperative effort between Technology and the companies actively engaged in research and development work, has been of great service to them, and that the experiment in this sense has been most successful.

Likewise the Technology Plan has caused a great increase in the closeness of the relationship between the several departments of the Institute, and the numerous individual workers. It is not upon the testimony of the Division staff but upon that of the heads of departments and active workers in the several departments that this statement is based. It seems as if the working of the Plan has been to knit much more closely together the several strands of our fabric, a process which must make for greater educational strength. This has come about because the problems as they come to us are not usually matters which can be handled by one individual or in any one department. I believe if the Plan had done nothing else in the last five years its existence would have been warranted by the extent to which it has caused the members of the staff to become associated actively with one another upon numerous problems.

WILLIAM H. WALKER
To whom goes major credit for the establishment, in 1919, of The Technology Plan

But the Plan has done much more than this. It has brought to Technology for distribution among the teaching staff great numbers of problems and researches which are live present day troubles of those actively interested in many branches of industry. The handling of these problems has had a wonderfully livening and leavening effect upon many members of the staff. The contacts that representatives of the contractors have brought us have improved the point of view of many of our more academic members and have been of great service to us in making us understand better the industrial world into which we are sending every year our finished product — scientifically educated and technically trained men. Most of the investigations carried on, especially those which involve long researches, result in publications which have brought creditable notice to the members of the staff as well as being notable contributions to science and technology. It is doubtful whether any considerable number of these publications would have been possible except through the agency of this coöperative plan.

There is another reaction of the coöperative plan upon the Institute which is difficult to measure, but the effect of which is very real and of considerable magnitude. It is the actual money returned to the members of the staff in fees and charges for service rendered. When one compares the great disparity between the salaries of men engaged in teaching and men of similar education and training employed in industry, he is led to wonder just how long the teaching institutions can hope to retain men. Of course practically the whole of the staff of Technology is within such a group. The operation of the Plan has done much, already, and can in the future be made to do much more to equalize this difference in remuneration. Fees and charges which bear a very substantial relation to the annual salary of a member of the staff can be and have been secured under this coöperative plan from grateful contractors at an expenditure of a very small fraction of the time of the teacher. It must not be assumed that the work brought to us is in large measure in the nature of routine tests, which would occupy the time of the staff with very little advantage except in a monetary way. The contractors have not, as a rule, brought us work of that kind nor have we particularly desired to do it except when it involved the use of special equipment and testing machines not readily accessible elsewhere. In fact the work consists mainly of just such problems as the teaching staff would like to be working upon if the Institute itself could have provided them with the necessary time and money.

There has probably come into the minds of many who have followed this article so far a query as to how we expect the teaching staff to do this sort of work and yet maintain reasonably effective teaching. This interesting work in research and industrial problems, which pays at a much higher rate than teaching, would seem likely to receive the best energy and thought of the members of the staff, relegating the work of teaching to second place. It was because of this possible outcome that many members of the staff hesitated to approve of the Technology Plan in the first place. So far nothing of the sort has occurred, and I am convinced that nothing of the sort is likely to happen. We were confronted with two ways of doing the work. One is by setting up a separate research staff to work upon the problems of the Division. Such experiments as have been made along that line have shown to my mind its utter folly. We

should soon have two sets of men, one teachers and the other researchers. Because of the difference in the salary scale of teachers and industrial workers, there would be an immediate discrimination between the two in salaries, in opportunities, in freedom of motion, and in opportunity for publication and whatever name and fame goes with it. We should soon group all our live, energetic, effective workers in the research unit leaving in the teaching staff only those men who are particularly fond of work of that sort, men who teach because they like to teach, and are so situated financially that they can afford to teach.

Under such circumstances I can see nothing but disaster to our general teaching.

If, on the other hand, we distribute our industrial work among those who are at the same time teaching we need to make but one provision in order to safeguard it. That is what has been done during the last five years at Technology. It has been agreed upon as a result of long experience that a certain number of hours of active teaching are about all that one man can effectively perform. This amount varies with the age of the teacher, with the nature of the work and the attendant increase in administrative and committee work which unfortunately comes to the more mature teachers. We have started out with the assumption that each member of the staff must carry a certain definite teaching schedule arranged for by the Head of his Department wholly without reference to the Division. There has been maintained in connection with the Treasurer's office a careful tabulation and summary of the teaching work of the staff so that no man's schedule is hit-or-miss, but represents a thoroughly organized effort to distribute the teaching load properly among the members of the staff in accordance with the requirements of the different types and forms of instruction. Assuming that an instructor carries his teaching load with success, it is in a sense no particular concern of the Institute what he does with the balance of his time. And there is always a considerable balance, because as has been stated, no man can teach effectively in actual classroom presentation a sufficient number of hours of work to compare with the number of hours' service which would be rendered by a man of the same training and experience actively engaged in industry. It has been customary in the past for members of the staff to use spare time in a number of ways. Some goes for administrative and committee work, some to research, to the writing of textbooks, to the perfecting of inventions, to activities in connection with various technical and engineering societies and perhaps to teas and golf. I think it is not inaccurate to state that a man's standing among his fellows outside of the Institute, even his promotion and remuneration here, is as much dependent upon what he does outside his actual classroom hours as in them. There is a general understanding, a sort of underlying creed among the members of the staff, that the work of teaching must be done well whatever happens.

What the Plan does is really to add one other opportunity for the use of the non-teaching time of the staff.

Under the Plan there has been set up, as has been stated, a personnel section essentially for the service of the contracting companies. But it will be realized, of course, that in order to know where men were available for one or another kind of work, we had to get in touch with the Alumni. This was done by Dr. Walker and his associate, Professor H. E. Lobdell, '17, and more recently by the present head of the personnel section, Mr. Kenneth Reid, '18. Through circulation of questionnaires and by repeated personal inquiry, we have gradually established, without having had this in mind in the first place, a sort of personnel bureau not only for the contractors on one side in order to find them men for jobs, but on the other hand for the Alumni whereby we might furnish them the jobs for men. In one way or another we are constantly employed in placing men. Most of the information concerning the younger Alumni must come to us from the heads of departments who have known them as students and who have maintained for their own use files and records which follow the men along year after year. The head of the personnel section may be said to have a staff of about a dozen assistants in the persons of heads of the departments. These jointly constitute an effective organization as shown by the number of men who are provided for, and by the great number of inquiries for men which come to the Division and to the heads of departments severally. It is the wish of the Director of the Division that the nature of this service might be better understood by the Alumni to the end that they may come to us more frequently for men, especially young men, and that they may also come to us whenever the changes and chances of industrial life shall make it seem desirable to them to seek a new position. It is realized that the Alumnus must sell his services himself to industry, and it would be unfortunate if such a personnel bureau should become in any sense a harbor for lame ducks. This would not seem likely in connection with a bureau that was maintained primarily for the purpose of hunting up men for special positions.

It is also the hope of the Director and of those associated with him in carrying on this work that the Alumni will actively interest themselves in its support, first, by calling attention to its existence to those to whom we might render service in solving problems or providing them with personnel, and second, by giving to the Director from time to time such suggestions as occur to them for the carrying on of this great project which, even after five years, must be viewed as somewhat of an experiment which needs the best thought and care that all can give.

As to the future: it is now proposed to seek with the modifications outlined in this article renewal of the original contract for such a term of years as seems desirable to the contractor. There will be some readjustment of the retainers and a systematic attempt to direct the funds resulting from the contracts into the special line of work in which the contractor is interested. This has already been begun, and the funds received from the large electrical companies are being made available for research in the laboratories of Electrical Engineering. It seems probable that the immediate renewals will be materially less in number than the original contracts, and it is hoped to offset this by an immediate solicitation of contracts from those whose industrial problems seem to be most suitable for treatment in our laboratories and with our staff, both from the point of view of the possible contractor and of ourselves.

It is planned to give much greater publicity to the work of the Division, both as regards its coöperative industrial features and its personnel section. The Technology Plan which was begun five years ago as an experiment, may be considered to have been successful, and is to be prolonged and made an integral part of Technology's educational life.

The One Hundred Eighth Meeting of the Council

Technology's House of Representatives in a varied evening as opener for the year

With President Thomas B. Booth, '95, presiding, the Alumni Council began a new fiscal year by meeting in the Faculty Dining Room of Walker Memorial on Monday, October 27. A new fiscal dinner was served before the business meeting began at 8 p.m.

As customary, greetings were exchanged between the incoming and outgoing alumni term members of the Corporation. The maneuver was accomplished without sideswiping, although J. F. McElwain, '97, grounded on a mud-flat, and had to be pulled off at high tide. H. A. Morss, '93, and M. L. Emerson, '04, who were both retiring term members despite that Mr. Morss now reappears as a life member, spoke briefly of their departures. Mr. McElwain, however, spoke from manuscript, and concerned himself with several current problems of the Institute, particularly the lowness of the Institute's salary scale, and its recent regrettable losses from resignation of prominent Faculty members.

G. L. Gilmore, '90, acted as *multum in parvo* for the incoming members, since neither Morris Knowles, '91, nor Redfield Proctor, '02, his fellow neophytes, could be present. O. B. Denison, '11, as Secretary, read letters of regret from both.

Dr. Stratton followed Mr. Gilmore with a brief address. He unhesitatingly agreed with Mr. McElwain that the salary scale was too low, and expressed the hope that some day this situation might change. It was Dr. Stratton's opinion that the staff must, in addition, be not too heavily burdened with the work of teaching. In his opinion, the Institute existed for research, and the hampering of gifted research workers by a heavy teaching schedule resulted in much inefficiency.

A severe financial stringency seized upon the Council at Dr. Stratton's conclusion, precipitated by Mr. Denison's reading of the Treasurer's Report for the fiscal year that closed on June 30. Council members learned from this report, many of them for the first time, that the operations of the Alumni Association during the past year had sunk it in debt to the extent of $8,900. An even higher total for this deficit had been somewhat offset by the successful operation of The Review, which ended its last volume with a profit of $4000.

As might be expected, there were questions concerning this, — A. F. Bemis, '93, being the courageous Alumnus who broke the silence which had followed Mr. Denison. To Mr. Bemis' question, Mr. Denison replied with disarming frankness that almost all of the deficit had been due to the increased expenditures incident to the establishment of the full time position of Executive Secretary. If anyone saw an implication deeper than this in the query of Mr. Bemis he kept silent, and in a moment the new Council cast its first vote — which was to accept the report and to place it on file. It has been done.

The Council proceeded then to the report of the Committee commissioned last spring to study the methods of nomination and election of Alumni to the Corporation. Mr. Bemis, as Chairman of this group, presented its unanimous decision that hereafter the nominating committee be instructed to nominate three candidates instead of the former two for each vacancy to be filled, so that an inevitable consequence would be to cause two defeated candidates to bloom where did one before. The theory of this recommendation was summed up by J. P. Munroe, '82, a recent convert to it, who expressed the belief that each of the two defeated ones would be only half as 'sore' (Mr. Munroe's word) as if he stood alone. The discussion of the Committee's report tended for a moment or two to catch in the well-worn groove so thoroughly gone over last spring, but the danger was averted, and shortly the Council moved again — stirred its great limbs and accepted this report also.

The scene now shifts to Chicago. The Technology Club there situate had some time ago, at the instance of Leslie W. Millar, '02, transmitted to the Association in the person of Mr. Denison, a formal vote to the effect that it believed Technology deficient in a bureau of "Business Service," or some such title, whose duty in life it would be to introduce perfectly nice young Alumni to perfectly nice young jobs, and then leave them alone in the parlor together. Mr. Denison spread vocally before the Council a considerable volume of interchanged correspondence, and having thus prepared the way, left the floor vacant for Frank D. Chase, '00, consulting engineer of Chicago who was present to plead the Middle Western cause.

Mr. Chase began by citing the example of the Harvard Appointments Bureau. It had much impressed them in Chicago that a young lady in this organization was kept constantly busy answering two telephones in the course of her merciful task. Why not a young lady with even, say, three telephones, in the employ of the Alumni Association for this same purpose at Technology? "Dennie or a capable woman," said Mr. Chase and added that the project might be financed by "adding a little more to that deficit."

I. W. Litchfield, '85, rose to comment upon the proposal. "It reminds me," said Mr. Litchfield, "of . . . ." Here followed what it reminded Mr. Litchfield of. Sent in plain wrapper, on receipt of stamps.

It was quite apparent that Mr. Chase and others of Chicago were altogether unaware of the personnel service supplied to the Alumni by the Division of Industrial Coöperation and Research. Kenneth Reid, '18, in charge of the Division's Personnel Section supplied data. He informed the Council that his files held the detailed qualifications of over 7500 men, that the Division had three telephones in less than constant but nevertheless in active use and that "if Tech men took full advantage of the Division, I do not feel that they would call for another bureau. The Division is supported by the Institute and not by the Alumni." Cryptic and double-edged, but literally quoted.

Prof. Charles L. Norton, '93, the Director of the Division, spoke at greater length. Although holding no brief for the perfection of the present system, he expressed the belief that it was in some respects superior to the frank "placement bureau." He disagreed with and deplored the sentiments of the Chicago group, but suggested that an extension of the Division's present services might very well lay their worries.

Mr. Chase emerged. "I did not know," he said frankly, "that Professor Norton's Division was doing so much. It ought to be given more publicity. I should like to see it left to Professor Norton to develop."

This frank renunciation by Mr. Chase of the previous Chicago stand left matters at the status quo. And so, after a few additional minutes devoted to discussion, the hour being 10:45, the Council was adjourned, having failed to show cause why it should not be restrained from any longer discontinuing to do so.

TECH MEN IN THE PUBLIC EYE

Edmund S. Campbell, '06

Edmund S. Campbell, recently appointed Dean of the Beaux-Arts Institute of Design, has taken up his duties at the headquarters of the Institute in New York.

Mr. Campbell's record of accomplishment as an educator in the field of architecture is a notable one. For the past ten years he has been a member of the Faculty of the Department of Architecture of Armour Institute of Technology, Chicago, Professor of Architectural Design in charge of design and, since 1919, in charge of the Department. Otto F.Cerny, winner of the LeBrun scholarship of 1924; R. Nedved, winner of the Chicago Architectural Club Scholarship, 1923; and H. R. Bieg, winner of the Paris Prize for 1924 of the Society of Beaux-Arts Architects are all recent students of Mr. Campbell's in the Armour Institute of Technology and of the Chicago Atelier, of which Mr. Campbell was Patron.

Mr. Campbell has been an exhibitor at leading water color exhibitions and is a member of the New York Water Color Club, the Chicago Society of Arts, the Pittsburgh Association of Artists, and other art societies and clubs. At present he is exhibiting water colors at the Delgado Art Museum, New Orleans, La.

Before going to the Armour Institute of Technology as a member of the Faculty, Mr. Campbell was for seven years a member of the Faculty of the Department of Architecture of Carnegie Institute of Technology (1907–1914). During part of that time (1910, 1911, 1912), Mr. Campbell was on leave of absence traveling abroad and a student admitted to the École des Beaux Arts, in the Atelier Bernier.

He was born in Monmouth County, New Jersey. He graduated from the Freehold High School and Stevens Preparatory School and in 1906 and 1907, respectively, he received the degrees of S.B. in Architecture and S.M. in Architecture at the Massachusetts Institute of Technology.

The appointment of Mr. Campbell as Dean marks an important advance in the development of the B. A. I. D. for it will make possible more effective coöperation with educational institutions throughout the country.

—*Pencil Points.*

Pencil Points

EDMUND S. CAMPBELL, '06

Formerly in charge of the Department of Architecture at Armour Institute of Technology and recently appointed Dean of the Beaux-Arts Institute of Design, in New York

Takuma Dan, '78

What the Standard Oil is in the popular mind to America — a dominating all-powerful far-reaching business organization — the "Mitsui interests", as they are commonly known, are to Japan. With perhaps but a single exception this family or clan is the greatest power in the business life of the Empire. It has a dozen different lines; it is in import and export; in shipping; it owns and operates its own fleets; it has tremendous mining interests; there is scarcely a line of endeavor that the "Mitsuis" are not deeply interested in.

The head of this vast organization is the Baron Mitsui, but the man to whom it owes much of its tremendous prosperity is Dr. Takuma Dan. He is the managing director of the Mitsui Gomei Kaisha,which is the holding company for all the varied and widespread Mitsui interests — a post of great responsibility and power. Dr. Dan was born in 1858 and was sent as a youth to America to study mining engineering at the Massachusetts Institute of Technology from which he was graduated in 1878. He was technical officer at the Government Meteorological Observatory and later in charge of the great Miike coal mine, one of the largest in Japan. When this was purchased by the Mitsui company he entered the employ of that firm and has been associated ever since. His rise from an ordinary engineer to one of the highest posts in Japan and one of the important industrial positions of the world is one of the fascinating chapters of modern life.

—*Japan* (*San Francisco*).

Andrew A. Potter, '03

The Society for the Promotion of Engineering Education, at the final session of its annual convention, selected A. A. Potter, Dean of Engineering at Purdue University, to be its next president. Dean Potter is now in London, business there having prevented him from attending the convention.

The new president is one of the best known engineering educators in the world. He was born in Vilna, Russia, in 1882 and came to the United States in 1897. He was then Andrey Abraham Pelonsky, and

he later, by court action, changed his name to Potter. Just six years after he landed in the United States he secured a degree of Bachelor of Science at the Massachusetts Institute of Technology. Then for two years he was with the General Electric Company.

Dean Potter began his career as engineering educator at the Kansas State Agricultural college where, from an instructor, he rose to be Dean. Later he was called to Purdue. He was a vice-president of the association in 1919.

—Denver News.

Guy C. Riddell, '04

Secretary Hoover has announced the appointment of Guy C. Riddell, of Rye, N. Y., a consulting engineer, as chief of the newly created Minerals Division of the Bureau of Foreign and Domestic Commerce. This new division will involve the consolidation of the present petroleum division with the non-ferrous metals section of the Iron and Steel Division.

Graduated from the Massachusetts Institute of Technology in 1904, Mr. Riddell's wide experience has been gained during many years of activity in the minerals industries. As superintendent of the East Helena Smelter, Mr. Riddell served with the A. S. & R. Co., for twelve years. For two years during the reorganization and modernization of plants and processes of the Australian lead and zinc industry, undertaken by the Broken Hill Associated Smelters in 1912, Mr. Riddell was engaged in the direction of the work. As metallurgical advisor to the U. S. Tariff Commission, he directed the preparation of about 100 industrial surveys and conducted investigations into the metal and mining manufacturing industries of the United States. Practical experience in the export field of mineral and metal commodities was gained as general manager of a New York import and export house engaged in the shipment of machinery, metals, ores, and chemicals, to the Far East, and as one of the incorporators of the first American corporation formed under the China Trade Act.

It is the hope of Secretary Hoover that this new division will develop a broad and useful service to the metal and minerals industry of the United States.

—Engineering and Mining Journal-Press.

Farley Osgood, '97

Farley Osgood, President of the American Institute of Electrical Engineers, has resigned as Vice-President of the Public Service Electric and Gas Company in charge of electrical operation. Announcement of the resignation and its acceptance "with deep regret" was made by Thomas N. McCarter, Public Service President.

An indication of Mr. Osgood's plans are to be found in Mr. McCarter's announcement. It states that:

"After leaving the service of the company Mr. Osgood plans to take a well-earned vacation. He will visit California in connection with his duties as President of the American Institute. On his return he will undertake certain engineering work of the highest importance to several large electrical companies of which the Public Services is one.

Mr. McCarter said that no decision had been made in regard to Mr. Osgood's successor.

Mr. Osgood is 50. He was born in Boston and studied at the Massachusetts Institute of Technology. He began his engineering career in the telephone field, later becoming general manager and chief engineer of the New Milford (Conn.) Power Company. From that post he came to the Public Service as superintendent of distribution in May, 1907. In September, 1909, he became general superintendent; assistant general manager in July, 1912, and vice-president and general manager in April, 1917. Mr. Osgood has been a fellow of the American Institute since 1905, served terms as manager and vice-president and was elected to the presidency in May of this year.

—Newark Star-Eagle.

Pierre S. du Pont, '90

The gift of Pierre du Pont of more than a million dollars to a hospital in West Chester, Pa., is but one item in his giving to the well-being, the weal — and so the wealth — of the Commonwealth. This special gift has attracted attention not so much by its amount as by the fact that it has at bottom the feeling which makes all kin. It was given primarily in recognition of the character and fidelity of an individual.

What he has done in his own Commonwealth is deserving of wider notice. During the war, in the period of greatest anxiety, Pierre du Pont endowed what is known as the Service Citizens of Delaware to work for the improvement of social conditions in the State. The organization undertook, in the first place, to make experiments that might be of help to the official agencies of the State. One of the earliest experiments was in the Americanization of the alien population. So valuable was its result that the State took over the formal educational processes. The Service Citizens, however, continued to give moral support and material supplement, so that the program has been carried forward with all the spirit of private effort. Another demonstration was in the training of teachers for the public schools.

Mr. du Pont's use of his wealth in the service of the State has not stopped with all this. He has established certain trust funds totaling now about $4,000,000 for the direct material benefit of the public schools of the State. After a survey of the schools had been made and standards and plans for new buildings had been drawn up and accepted by the State Board of Education, he began their construction. Delaware has only 39,036 children in the public schools. Of these, 14,127 are now, or will within a few months, be housed in new buildings. Not all this has been accomplished by the Service Citizens, but this body, endowed by Mr. du Pont, has already spent $2,022,000 for school construction and has contracted for nearly a million more. It has built in all over a hundred schools with a capacity of 7,800 and has shared with the State or the district the building of others. In addition, the Service Citizens organization has helped to promote school attendance and to organize parent-teacher associations. It has also put libraries into 335 of the schools.

There are instances in other States of the contribution of private wealth toward the improvement of the educational facilities of the Commonwealth — notably the gifts of Mr. William E. Miner to the building and maintenance of the central school at Chazy, N. Y. — but in no other State has such an extensive program of coöperation been carried out as by the Service Citizens of Delaware through the aid of Mr. Pierre du Pont and under the leadership of Dr. Joseph H. Odell. It is a most notable illustration of private effort and wealth in public service.

—The New York Times.

UNDERGRADUATE AFFAIRS

The Sports of Fall

There are four classes of undertaking in fall sports this year: Crew, Cross-Country, Field Day, and Soccer, to place them in alphabetical order. The third mentioned resulted in a complete whitewash for 1928. The sophomores won the crew race, the first two pulls of the tug-of-war, the relay by over half a lap, and the football game without permitting a desecration of their own goal line.

Crew, Cross-Country, and Soccer cannot be so accurately and summarily adjudged. The first of these in the fall consists almost entirely of a training period in prospect for continued work on the machines during the winter and outdoor racing in the spring. Of course, two underclass crews are trained for Field Day and in addition this year Junior and Senior class crews were boated. This latter attracted the attention of the *New York Times* which featured its statement in a top-column box saying of the Technology oarsmen that "they held interclass elimination races at sunrise this morning and also practiced with lights on their shells until after dusk this evening. At 7 a.m., with laborers on their way to work and a few enthusiastic classmates [sic!] as spectators, six eight-oared shells went out on the river . . . The evening sessions cannot begin until late classes are over, and will continue through dusk. After several shells had been lost to sight of the coaches, lights were ordered, and the Charles River Basin now presents an evening picture of racing lights." Such are the perils of navigation in addition to the Harvard Bridge.

Coach Haines is being assisted by D. C. Sayre, '24, who rowed Varsity No. 2 last season; Ralph May, who has been one of the rowing leaders of the Union Boat Club for some years; Temple Pond, former Harvard Varsity oarsman in the Haines régime and now a Union Boat Club man; and George Farnsworth, former member of the Detroit Boat Club. Professor F. S. Dellenbaugh, Jr., '21, who has laid aside (temporarily we hope) his academic honors to assume the rôle of Graduate Student at the Institute, will continue to aid, although his classroom work will probably not permit him to take as active a part as before.

Athletic Results to November 15

CROSS-COUNTRY—LEVEL TEAM

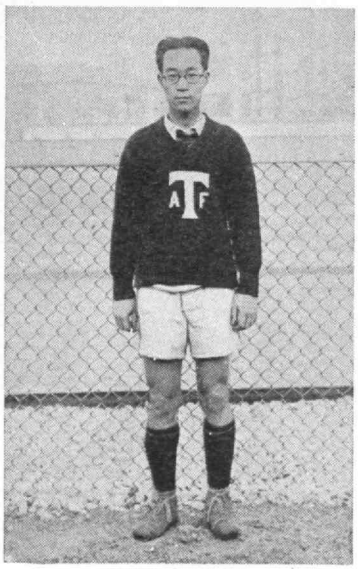
Oct. 24—Holy Cross 27, M. I. T. 28, at Harvard Stadium Course.
Oct. 31—Harvard 20, M. I. T. 37, at Harvard Stadium Course.
Nov. 7—Princeton 24, M. I. T. 36, at Harvard Stadium Course.

CROSS-COUNTRY—HILL TEAM

Oct. 24—Brown 24, M. I. T. 36, at Franklin Park.
Oct. 31—University of N. H. 15, M. I. T. 49, at Durham.
Nov. 8—N. E. A. A. U. Run; Dorchester A. C. 22, Stoughton A. A. 43, M. I. T. 55, at Franklin Park.

SOCCER

Oct. 11—M. I. T. 2, Worcester P. I. 1, at Tech Field.
Oct. 18—M. I. T. 1, Clark Univ. 0, at Worcester.
Nov. 1—Dartmouth 1, M. I. T. 0, at Hanover.
Nov. 8—M. I. T. 4, Amherst 3, at Amherst.
Nov. 12—Harvard 3, M. I. T. 2, at Tech Field.



CAPTAIN SUN
Shining light of the Soccer Team

The spring schedule for the Varsity crew has been announced. It includes the Naval Academy at Annapolis on April 25, Harvard and Cornell on the Charles on May 9, and Columbia on the Harlem on May 16.

Cross-Country work is again in charge of the Track Coach, Dr. T. J. Connors. He is being assisted by Oscar F. Hedlund, former holder of the world's indoor mile record and coach at Boston University during the last three years. Hedlund flashed into national prominence in 1912 by taking the measure of Abel Kiviat by a 30-yard margin in the Hunter Mile classic, winning this B. A. A. feature in the record time of 4.23 4–5. His mark stood for seven years. He joined the B. A. A. forces in 1913 and wearing the Unicorn during the indoor season of that year broke the world's indoor record for the mile. He accomplished the feat in a handicap race at Madison Square Garden, starting from scratch with Norman Taber and breaking the tape in 4.18 3–5.

Something brand-new in cross-country racing is being tried this year but at the time of writing, with the scoring results as shown elsewhere on this page, it seems to have been an unproductive effort from the standpoint of victories. It is doubtless too early to evaluate the merits of the scheme, which is said to have induced more students to try out for the sport. Briefly, the plan contemplated two Varsity teams, one trained and scheduled for hill courses and the other for flat courses. The former was to be groomed particularly for the New Englands held at Franklin Park, an up and down course. The latter was to be the I. C. A. A. A. A. outfit to race at Van Cortlandt Park, an almost level course. The theory was that different training methods were necessary for the two types of work and that certain runners would be able to accomplish greater feats if they were allowed to specialize by voting for "hills" or "no hills." Soccer has been under way this year longer than any other fall sport. The squad began practice under Captain Sun, '25, last July. As usual, it has brought out many foreign students; eight different nationalities are represented. Light practice was carried on in Cambridge during the summer.

For the first time Soccer has had a professional coach, Alec McNab, outside right for the Boston American League and former Greenoch Morton (Glasgow) star. He represented Scotland in two international contests and also earned a Scottish cup medal, being on the winning team against the Rangers in the final two years ago.

The New Tech Show

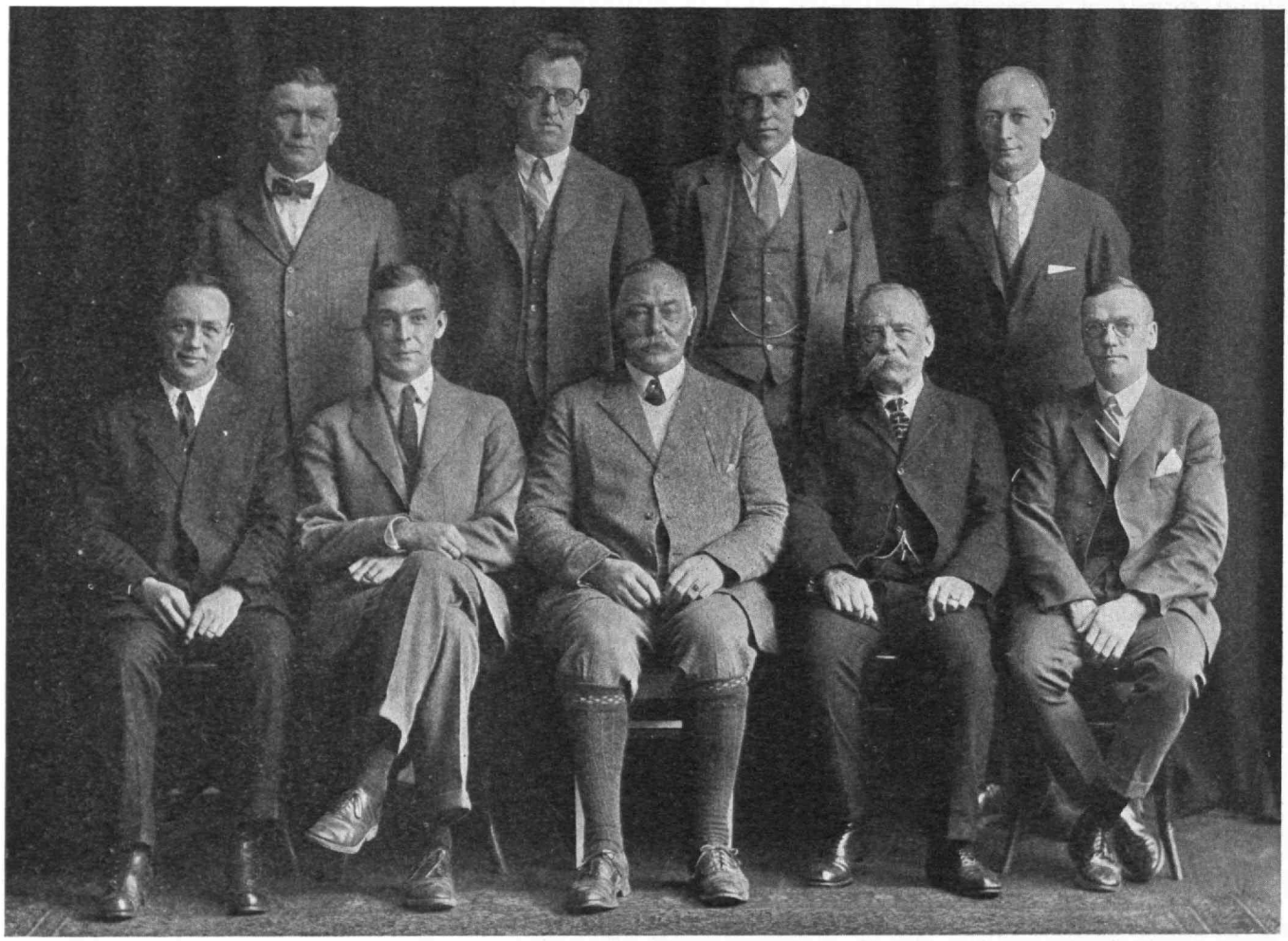
At a recent smoker, the author and title of the Tech Show for the current season was announced. The Show this year is by Roger Ward, '25, of Chelsea, and the present title of the book is "A Lady in Mating."

This year will mark several departures from Show practice of recent seasons. In the first place, the book does not set its characters in some exotic place, far removed from the land of reality. The scenes are laid in the United States. This, of course, removes a certain part of the color that has been so glorious a part of the Show in past years. On the other hand, it is quite in accordance with current musical comedy practise. Ever since the big three of Woodhouse, Bolton and Kern began their series of popular Princess Theatre musical comedies, the day of Belgravia and Nuritania has been numbered. In getting away from the foreign, Oriental setting the present book but falls in line with the times.

An important feature of the Show in the past has been the ballet. The ballet while colorful and pleasing, has never been an integral part of the performance but has rather been an interlude. In past years, the setting of the piece itself has allowed the ballet entrance without too great a clash. With the type of book presented this year, the ballet has no direct justification for being and the present expectation is that it will therefore be omitted.

The Institute Committee

Considerable excitement has been stirred up in the undergraduate body by a proposal to make radical changes in the number of men on the Institute Committee. The change proposed is a sweeping reduction of personnel which would drop 15 men from the governing body. The claim is set forth that at present the Committee is too bulky and that further there is much deadwood in its membership. The proposal is to deprive all the heads of professional societies of their seats and substitute one man representing the Combined Societies; to reduce the representation of the dormitories from four to one, and to deprive the heads of the four publications of their seats and substitute one joint representative. The first proposal was made by an individual member of the committee.



COACHES OF THE FOURTEEN VARSITY SPORTS *Notman*

Left to right: Top row; John A. Carlson [Cyclone Burns], Wrestling; Thomas J. Connors, Track; Russell Dean, Swimming; Henri P. McCarthy, Basketball. Bottom Row; Thomas R. Rawson, Boxing; Joseph W. Barker, '16, Rifle Team; William Haines, Crew; Jean L. Danguy, Fencing; Oscar F. Hedlund, Track.

Those not in the picture are Edward N. Hincks, Gym; Gerald Wiggett, Hockey; Alec McNab, Soccer. Coaches have not yet been appointed for Tennis and Golf.

NEWS FROM THE ALUMNI CLUBS

INDIANA ASSOCIATION OF THE M. I. T.

The regular September meeting of the Association was held on Monday, September 29, at the University Club, Indianapolis. A mysterious notice concerning a $1,000,000 Prize Package had been announced as the main feature of the meeting. Evidently, money talks as twenty men put in an appearance after the usual substantial dinner with its concurrent opportunity for the discussion of old and new times. A. S. Franklin, '98, our President, called on John L. Bray, '12, now Professor of Mining Engineering at Purdue University, to give us a little impromptu talk upon some of his novel experiences. By the way, A. A. Potter, '03, now Dean of the Engineering School, at Purdue, had brought down Bray, William P. Turner, S.M.A., '86, N. T. Bourke, '18, and Richard G. Dukes, '94, from Lafayette. All these men are of the Purdue Faculty.

Bray told us of how he had gone through a revolution in Honduras and as the "Brave American had become unwillingly Commandante pro tem, during the self-enforced absence of the native usually on the job." Bray served under a three star, red striped American? Flag made up for the occasion by natives who desired his protection on the crisis.

Proceeding now to the announced subject, the Secretary explained the gift to this Association of The Million Dollar Lecture at the hands of its author, Professor Schell. Stating that he believed in production methods and complying with the request that our members be made acquainted with this lecture, it was read aloud. There was no doubt as to the appreciation of all of its trend and lessons. Many questions were asked as to the possibility of obtaining copies for individual ownership. This lecture may be designed for the first five years following graduation. However, our queries were not at all confined to that class. Maybe we can get some copies. We hope so. If any other clubs have members with similar desires, perhaps the aggregate demand may make it possible.

A sad accident resulting in the death of Franklin Hall Marmon, '22, occurred on Saturday, October 11. Hall Marmon was associated with the Nordyke & Marmon Company, manufacturers of Marmon cars. His grandfather, Daniel Marmon, was one of the founders of the company which manufactures flour milling machinery. Walter C. Marmon, '95, Hall's father, has until recently been President of this company. Hall's ability was well recognized long before he went to M. I. T. He was well known for his boy-size automobile which he built and drove about Indianapolis. He was also high among the Boy Scouts. Hall has been in charge of the testing for the Marmon Company and was returning from a test drive to Pikes Peak, Colo. His trip had been almost accomplished when within twenty miles of home his car struck loose gravel and overturned, pinning him beneath. We have all sustained a severe loss. Indianapolis has lost one of its promising citizens and M. I. T. one of its promising alumni.

Carlton E. Davis, '93, until recently of Philadelphia and now General Manager of the Indianapolis Water Company, is becoming a regular at our local meetings. We are glad Philadelphia passed him on to us.

Tastes among Tech alumni vary. However, this variety was amply met by the address at the October meeting of the I.A.M.I.T. S. E. Perkins of the Audubon Society and President of the Nature Study Club, also a prominent bird bander, entertained the meeting with a talk upon bird engineering and architecture as displayed in migrations and in nest building. Mr. Perkins displayed wings and tails of different types and explained the various movements of locomotion and soaring flight. This talk was followed by the usual questions and discussion. We had sixteen out for the meeting, which included the usual informal dinner at the University Club.

The classmates of Edwin J. McNally, '16, will probably be interested to learn of his recent marriage at Indianapolis. Mac is with the Allison Engineering Company which, among other things, manufactures reducing gears for navy aeroplanes.

J. Lloyd Wayne, 3d, '96, *Secretary*,
Indiana Bell Telephone Co., New York and Meridian Streets,
Indianapolis, Ind.

TECHNOLOGY CLUB OF PHILADELPHIA

Philadelphia alumni, probably in common with many other alumni, were apprehensive that the Institute was endeavoring to follow the lead of large academic colleges and attain a ranking place in intercollegiate sports. Dr. Allan W. Rowe, of the Advisory Council on Athletics, very kindly volunteered to come to Philadelphia and explain the objective of the Institute in its athletic program.

Seventeen members of the Tech Club met at luncheon at the City Club on October 24 to hear Dr. Rowe. Before the luncheon was over, we were satisfied that we had been laboring under a misapprehension. Dr. Rowe assured us that the objective is not to develop winning teams but rather to make participation in athletics as general as possible in order to maintain a high standard of health among the undergraduates. The emphasis is primarily on intra-

Records of all Local Clubs in 1924-25 Dues Campaign

(Including Dues Received November 6, 1924)

NOTE:—Numbers in parentheses represent position of each club as of October 10, 1924.

Club	Paid	Unpaid	Total	% Paid
Akron (1)	40	54	94	42.5%
Pittsburgh (4)	91	130	221	41.2%
Bangor (3)	15	22	37	40.5%
Cleveland (2)	72	108	180	40.0%
Bridgeport (6)	35	54	89	39.4%
Birmingham (5)	14	22	36	38.9%
Manchester (7)	77	125	202	38.1%
Panama (34)	6	10	16	37.5%
Pittsfield (11)	24	41	65	37.0%
New York (12)	679	1229	1908	36.6%
Schenectady (15)	54	94	148	36.5%
New Haven (16)	50	90	140	35.7%
Indianapolis (8)	21	39	60	35.0%
Niagara Falls (9)	14	26	40	35.0%
Paris (56)	9	17	26	34.6%
Rochester (13)	41	78	119	34.5%
Fall River (18)	22	42	64	34.4%
New Orleans (10)	11	21	32	34.4%
Milwaukee (14)	29	57	86	33.7%
Boston (22)	742	1464	2206	33.6%
Louisville (19)	15	30	45	33.3%
Denver (20)	34	69	103	33.0%
Cincinnati (17)	45	92	137	32.9%
Los Angeles (24)	86	176	262	32.8%
Providence (23)	92	193	285	32.3%
Duluth (27)	8	17	25	32.0%
Hartford (21)	66	142	208	31.7%
Hawaii (31)	6	13	19	31.6%
Dayton (36)	23	50	73	31.5%
New Bedford (25)	34	78	112	30.4%
Philadelphia (28)	143	337	480	29.8%
Detroit (26)	42	101	143	29.4%
St. Louis (39)	31	76	107	29.0%
Chicago (32)	141	355	496	28.4%
Washington (35)	86	225	311	27.6%
Harrisburg (33)	13	34	47	27.6%
Minneapolis (29)	24	64	88	27.3%
Buffalo (37)	36	98	134	26.9%
Salt Lake City (30)	10	28	38	26.3%
Springfield (39)	50	149	199	25.2%
Japan (42)	7	21	28	25.0%
Baltimore (38)	36	109	145	24.8%
La'ence-Lo'l (41)	108	332	440	24.6%
Norway (51)	4	13	17	23.6%
Atlanta (44)	12	40	52	23.0%
Butte (40)	8	27	35	22.9%
Worcester (46)	50	178	228	22.0%
Urbana (43)	3	11	14	21.4%
Kansas City (45)	11	41	52	21.2%
San Francisco (47)	41	153	194	21.1%
Syracuse (48)	14	53	67	20.9%
Seattle (49)	21	82	103	20.4%
Taunton (53)	40	162	202	19.8%
Portland, Ore. (55)	12	53	65	18.5%
Portland, Me. (56)	20	97	117	17.1%
Jacksonville (54)	4	21	25	16.0%
Spokane (58)	3	16	19	15.8%
Richmond (57)	10	72	82	12.2%
Shanghai (59)	8	61	69	11.6%
Total Club Territory.....	3443	7592	11035	31.2%

mural activities with extramural activities existing as an incentive to wider participation. He stated that last year 1500 undergraduates were on Institute athletic squads. His description of how the athletic program is expanding to meet the needs of the entire student body made us realize that we have been very much out of touch with athletic affairs at the Institute.

For our November meeting, the Entertainment Committee under the chairmanship of Dud Bell, '17, is providing something out of the ordinary. Instead of the usual dinner meeting, they are going to give us a smoker with two or three acts for entertainment.

Jeff Tutein, '17, extended his sojourn in Europe in order to give us a chance to recover from our surprise at the following announcement, which appeared in the *Public Ledger* on September 25: "Dr. Randolph Faries announces the engagement of his daughter, Miss Marie L. W. Faries to Mr. Dexter A. Tutein, of this city, son of Mr. and Mrs. E. Arthur Tutein, of Winchester, Mass. Miss Faries is a granddaughter of Mrs. Jones Wister."

Walter J. Beadle, '17, *Secretary*,
Philadelphia Rapid Transit Co., Philadelphia, Pa.

TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA

At the September Luncheon of the Technology Association of California, Mr. C. E. Grunsky, President of the A. S. C. E., gave a talk on the proposed salt water barrier for the upper part of San Francisco Bay. This project is for a dam at the lower end of San Pablo Bay, an arm of the main bay, which will prevent salt water from backing up into the rivers and thus create a huge fresh water bay which will also serve as a large reservoir and assist in flood control. Locks for the passage of ships are a part of the plan. Mr. Grunsky is not a Tech man, though his son, Eugene L. Grunsky, is an '09 man in Course I.

On Sunday, October 12, we had a barbecue picnic at the home of Walter S. Leland, '96, in the country near Walnut Creek. There were nearly fifty who made the trip, counting the wives and children, and when they returned home they carried back forty pounds of barbecued steak with trimmings. It was a great success in every way.

The local Tech people are getting much better acquainted through these affairs we are giving. Even the co-eds are showing interest. One of our aims is to make every Tech man in this district acquainted with every other. The words "Tech man" embrace the co-eds too. One surprising thing is the scarcity of recent graduates at our lunches. There are a good many here but we see very few of them. Probably they are so busy making the first million they can find no time.

At our October lunch on the twenty-eighth, Paul R. Parker, '03, will tell about his recent trip to the west coast of South America.

Archie L. Mock, '22, *Secretary*,
664 Howard Street, San Francisco, Calif.

TECHNOLOGY CLUB OF NEW YORK

The Technology Club of New York is settling down for another winter in its quarters on Gramercy Park, one of the few quiet back waters of a busy metropolis. It extends, as usual, a cordial invitation to all wandering engineers in these parts to come for as short or as long a visit as they can. They will find an oasis of good cheer in an otherwise possibly cheerless desert of unhospitable natives.

The Entertainment Committee under the direction of T. D'A. Brophy, '16, has arranged a program of entertainments diversified enough to suit every taste. It would not be seemly to boast of the Hallowe'en Party now that it is only a memory of the past, but the future is always before us, and we would like to call the attention of Tech men in the vicinity of New York, to the coming entertainments at the clubhouse being provided by the Entertainment Committee.

On November 20, Mr. O. C. Harn, General Manager of the National Lead Company, will speak on "The Engineer in Modern Merchandising." On December 9, there will be a Comedy Program in which the very finest professional talent will try to compete with that of our own Tech men. On January 13, the General Manager of Pathé Frères (a fairly well known educational concern) will give an Illustrated Motion Travel Program.

There will be a dinner before each of these events, and, in between times, the hospitality of the club with the excellent cuisine of the adjoining Players Club, which means meals in the clubhouse when and as you may wish them, is at your service.

Robert H. Scannell, '17, *Recording-Secretary*,
1 Stevens Avenue, Mt. Vernon, N. Y.

WASHINGTON SOCIETY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The first speaker meeting of the year was held at the University Club on Friday noon, October 10. Mr. O. C. Merrill, Secretary of the Federal Power Commission, M. I. T., '05, gave a delightful account of the first meeting of the World Power Conference, which was held in London last July. Mr. Merrill was one of the official representatives of the United States and is a member of the Executive Committee of the Conference. Mr. Merrill pointed out the interesting fact that one of the principal accomplishments of the Conference was the getting together in amity and harmony representatives of practically all of the European nations, including Germany. He believes that such a conference is a distinct step in bringing about international understanding and coöperation among the nations of the Continent. The papers presented at the Conference, he believed to be the most important and valuable contribution yet made to the subject of power engineering, especially with relation to hydro-electric development.

In spite of the fact that the luncheon was held at the time of the last game of the world champion baseball series, there was a large and enthusiastic attendance.

The next meeting of the Washington Society will be held at noon, on Friday, November 14, and the Engineer Commissioner of the District of Columbia, Major Bell, will give an address.

On the evening of Thursday, October 16, a group of members of the Washington Society had the great privilege of a dinner chat with President Stratton, who was in the city attending a meeting of the Naval Advisory Board on Aeronautics. President Stratton, in his delightful manner, told those present of some of the more recent developments at Technology, especially with relation to the building program methods of construction. It is to be hoped that President Stratton, Secretary Denison, and other members of the Institute Staff will favor us occasionally with these short and inspirational visits.

The Secretary of the Washington Society spent the period between the first of July and the middle of September in England. On the evening of September 8 he had the honor of delivering the Third Annual Autumn Lecture before the Institute of Metals of Great Britain, on the subject of "Recent Developments in Non-Ferrous Metallurgy in the United States." He had the privilege of meeting many interesting people and was given a royal time throughout his entire visit abroad. Of course, there was also a brief visit to Paris.

On the twentieth of September, at the Little Church Around the Corner in New York, the Secretary was married to Miss Ruth Albert, of Washington. After a short honeymoon at the Lake Placid Club, Lake Placid, N. Y., they returned to Washington, where they will make their home.

W. Malcolm Corse, '99, *Secretary*,
1901 Wyoming Avenue, Washington, D. C.

NEWS FROM THE CLASSES

News from even-numbered classes is published in issues dated November, January, March and May. News from odd-numbered classes is published in issues dated December, February, April and July. The only exceptions to this rule are those classes whose Secretaries have guaranteed the appearance of notes in every issue. These classes are: 1895, 1896, 1900, 1901, 1902, 1905, 1907, 1911, 1912, 1914, 1915, 1916, 1917, 1918, 1919, 1921, 1922, 1923 and 1924. Other classes adhere to the alternate schedule. Due to strict limitation of space, The Review is unable to publish lists of address changes of members of the Association. The Alumni Office, in Room 3–209, M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

'75

The Secretary has been too busy with his work in connection with Camp Quanset this summer to get away from Cape Cod, and apparently none of the '75 boys ever come to that part of the country. So what notes he is able to contribute are gleaned from items seen in the newspapers.

Edgar S. Dorr, who has been connected with the Boston Sewer Department since 1880, retired on August 1. I note the paper states that he was graduated from M. I. T. in 1881, but that is an error, as he was a '75 man.

Arthur G. Grinnell, who was with us during the first year, and who has long lived in New Bedford, died on June 15.

Benjamin A. Oxnard died on August 19, at his home in Savannah, Georgia. Ben was a son of Thomas and Louise A. (Brown) Oxnard, born at New Orleans, Louisiana, on December 10, 1855. For several years after graduation he was with the Fulton Sugar Refinery, and a member of the firm of Oxnard Brothers, in Brooklyn, N. Y. From 1892 until 1921 he was President of the Adeline Sugar Co. of New Orleans, and since then President of the Savannah Sugar Refining Co.

Edward A. W. Hammatt, *Secretary*,
South Orleans, Massachusetts.

'81

John Duff died on September 19. He was one of the best known members of our class, both when he was at the Institute and in later years. Your Secretary remembers him as a member of the old 1881 Tug-of-War with George Mower, himself, and one other man (I think it was either Allen or Goddard).

On graduating, John was Assistant in the Mining Laboratory for a couple of years, and then went to Atlanta, Idaho, where he was Superintendent of the Big Lode Mining Co. for two years. In 1886 he went to Flint, Idaho, with the Flint Idaho Mining Co., and then studied medicine at Harvard, receiving his M.D. in 1890. He became a very prominent physician and was widely known as a philanthropist, ministering to poor families without charge hundreds of times during his long period as a practitioner in Charlestown. He had been distinguished for many years by a white felt hat he always wore.

He was born in Charlestown sixty-four years ago. While practicing medicine he made all of his professional calls on foot or with the aid of trolley cars. He became known early in his career as a skilful physician and surgeon, and for years attended to the surgical work at police station No. 15. Explaining how he came to wear a white felt hat, Dr. Duff once said in an interview that his father-in-law, the late John Harrington, was in the hat business on Washington Street for many years. One day the latter said to Mrs. John Duff: "I have a beautiful white felt hat in the store that I can't get rid of. Take it home and see how it looks on John. He's got courage enough for anything. Perhaps he'll wear it." Later, Mr. Harrington kept the doctor supplied with them.

Dr. Duff is survived by a widow, Mrs. Julia Duff, who was a member of the Boston School Committee for many years, two sons, Dr. John Duff, Jr., and Dr. Paul H. Duff, and a daughter, Miss Juliet Duff.

He was a trustee of the Bath Department of the City of Boston for three years, and was a member of the Knights of Columbus, Heptasophs, Royal Arcanum, Fraternal Helpers. For years he had been the Class of 1881 representative of the Association of Class Secretaries. The Secretary has appointed Edwin J. Lewis, Jr., as his successor. This leaves sixteen living graduates out of twenty-seven men.

Frank H. Briggs, *Secretary*,
390 Commonwealth Avenue, Boston, Mass.

Records of Classes in 1924-25 Dues Campaign

(Including Dues Received November 6, 1924)

NOTE:—Numbers in parentheses represent position of each class as of October 10, 1924.

	Class	Total	Paid	% Paid		Class	Total	Paid	% Paid		Class	Total	Paid	% Paid
	1924 (1)	1345	422	31.4%		1886 (15)	193	48	24.9%		1914 (41)	492	94	19.1%
	1890 (5)	227	64	28.2%		1895 (18)	342	84	24.6%		1904 (40)	456	87	19.1%
	1921 (6)	957	268	28.0%		1877 (17)	91	22	24.2%		1915 (48)	584	111	19.0%
	1887 (3)	200	56	28.0%		1882 (11)	79	19	24.0%		1909 (46)	474	90	19.0%
5	1885 (4)	150	42	28.0%	25	1922 (26)	1604	365	22.8%	45	1875 (37)	79	15	19.0%
	1888 (2)	231	64	27.7%		1900 (24)	365	82	22.4%		1899 (47)	363	68	18.8%
	1881 (7)	88	24	27.3%		1894 (20)	291	64	22.0%		1910 (42)	491	91	18.5%
	1891 (8)	242	65	26.9%		1902 (23)	358	78	21.8%		1903 (43)	402	73	18.2%
	1920 (10)	630	169	26.8%		1911 (31)	473	103	21.7%		1919 (49)	537	97	18.1%
10	1893 (9)	345	92	26.6%	30	1898 (29)	421	89	21.1%	50	1883 (50)	100	18	18.0%
	1889 (13)	223	57	25.6%		1897 (32)	362	76	21.0%		1918 (51)	655	107	16.3%
	1892 (16)	282	71	25.2%		1878 (25)	43	9	20.9%		1884 (53)	129	20	15.5%
	1896 (12)	396	99	25.0%		1912 (36)	486	101	20.8%		1872 (54)	39	6	15.4%
	1916 (19)	593	141	23.8%		1901 (38)	361	74	20.5%		1868 (52)	27	4	14.8%
15	1905 (28)	534	127	23.8%	35	1907 (34)	473	95	20.1%	55	1880 (55)	75	9	12.0%
	1923 (21)	1490	350	23.5%		1873 (30)	60	12	20.0%		1871 (56)	43	5	11.6%
	1879 (14)	94	22	23.4%		1906 (39)	522	103	19.7%		1870 (57)	45	4	8.9%
	1917 (22)	670	155	23.2%		1876 (33)	92	18	19.6%					
	1869 (35)	26	6	23.1%		1908 (44)	476	92	19.3%		Total Alumni	21393	4860	22.8%
20	1913 (27)	535	123	23.0%	40	1874 (45)	52	10	19.2%					

% Subscribers (November 6) of Grads and Associates 4860 ÷ 11398 = 42.7%

% Subscribers (November 6) of Last Year's Subscribers 4860 ÷ 5523 = 88.0%

'83

The following was clipped from one of the Boston papers recently: "Edwin Upton Harrington, for whom funeral services were held today at the Church of the Epiphany, Winchester, with Rev. John W. Suter, D.D., assisted by Rev. Allen Evans, Jr., rector of the parish, officiating, was a native of Salem, and was born on July 27, 1865. He was the son of Captain George and Eugenie (Saudray) Harrington. He was a member of the Technology Class of '83 and always kept up his interest in that institution. He had spent practically all of his business life in the tobacco trade in which he was widely known both in Boston and New England. During his latter years he lived in Winchester. In 1904, Mr. Harrington married M. Winnifred Kelsey. She and one daughter, Hester Harrington, survive. Mr. Harrington was a member of the University Club, Boston City Club and Boston Athletic Association, and he was a thirty-second degree Mason."

Those who attended our Fortieth Reunion last year will remember that Harrington was with us at that time. The sympathy of the class is extended to Mrs. Harrington and her daughter.

In June, the annual automobile pilgrimage was undertaken by three members of the class and their wives — Horace B. Gale of Natick, George H. Capen of Canton, and George H. Bryant of Newport — who went through the Berkshires to Lake Mohawk, where they boated and bathed and played golf; then up along the Hudson to Saratoga and Lake George, across Lake Champlain to Rutland and to Manchester, Vt., where the Secretary and Mrs. Chase were expected to meet them. The final run was down through the Berkshire country again to Stockbridge and return by way of the Jacob's Ladder trail.

It is planned to take another trip next year and we shall hope to include more members of the class and their families. The Secretary now gives notice of a reunion to be held at his residence "Triple Trees," Concord Avenue, Lexington, next June, preceding the pilgrimage, to which all members of the class, whether active or inactive, are invited with wives, children, and grandchildren.

The Secretary goes to St. Petersburg, Fla., on November 16, this year, and his address there will be 434 First Avenue, North. Notices in relation to class matters should be addressed to him there until April. On his return North detailed plans for the reunion will be sent out. In the absence of news from other members the Secretary states that he will be engaged this winter in "litry pursoots" completing his book on "The Rise of American Accountancy" with an autobiography, which will be published, probably in the spring, by the Ronald Press of New York.

Harvey S. Chase, *Secretary*,
84 State Street, Boston, Mass.

'85

The Secretary has only recently received word that our classmate, Louis L. Dodge, died on August 28, after a short illness. Dodge came to Tech with '85 and after remaining one or two years left to take a position as draughtsman at the Charlestown Navy Yard. During all the years that have intervened he remained in the same place and in the same position until the spring of 1923 when, because of curtailment in the appropriation for the yard, a large number of the force was let out, of which Louis was one. Within a very short time after this event his wife was struck by an automobile, and died after lingering in the hospital a few weeks.

The class was asked to use its kind offices in his behalf, but it was not easy to find employment for one whose experience had never gone beyond such specialized technical lines. Sidney Parsons, however, took the matter in hand and found a place for him with the Highway Commission, where he remained until January when his health failed and he left.

He had a son and a daughter in whom he took great comfort and who attended him in his illness.

Louis was a most loyal member of the class and could always be depended on to attend such gatherings as did not interfere with his work. He was always cheerful even under heavy burden and he will be greatly missed.

Newell and A. B. McDaniel, '01, have recently organized a unique service in the nation's capital. Their purpose is to make investigations and reports on topics of national interest and importance, and to serve as a facts-finding agency for those who desire information relative to governmental matters. Starting in as the representatives of the American Association of Engineers, they expect to widen their field and to serve as the representatives of other national organizations that are interested in welfare matters of special interest to the engineering profession. They will have available scientists, economists, statisticians, legal experts, and others to assist in the solution of special problems.

The *Scientific American* for November says: "The American Association of Museums has headquarters at the Smithsonian Institution. The object of the organization is to promote the welfare of museums, to increase and diffuse knowledge of all matters relating to them, and to encourage helpful relations among museums and those interested in them. The association has recently been changed radically for the better. Professor Charles R. Richards is the Director." Charles' new address is "American Association of Museums, 2 West 46th Street, New York, N. Y."

I. W. Litchfield, *Secretary*,
Hotel Wadsworth, 10 Kenmore Street, Boston, Mass.

'89

Zenas Bliss, now Chairman of the Board of Tax Commissioners of Providence, R. I., delivered an address before the Academy of Political Science of New York City on April 15 on "Wealth and Taxation." The address has been published by the Academy and contains an analysis of taxation methods which is not only instructive but entertaining. It is a pity that words of wisdom such as these cannot fall more generally into the hands of the mass of voters and those who possess the taxing power, as well as of those who have to pay.

It has been noticed in several Washington papers of recent date that Harrison G. Dyar, who has been living in Washington for many years, gets his evening exercise in digging tunnels in his back yard. According to these papers the tunnels are beautifully built of brick and concrete and only when a heavily loaded truck passing over one of them broke through the roof did the reporters discover them. The reporters' fevered imagination immediately labeled them successively as the work of smugglers, German spies, and bootleggers, but Dyar promptly cleared up the mystery to the satisfaction of all. Incidentally, the portrait of him which one of the papers published, shows a good-looking, slightly grayish man with a beard and a humorous twinkle in his eye and makes us wish he would come up to the next dinner and renew acquaintances.

The *American Education Digest* for September publishes the following: "Professor Fred Crabtree, Head of the Department of Metallurgical and Mining Engineering at Carnegie Institute of Technology, has been elected President of the Engineering Society of Western Pennsylvania. This organization with a membership of 1200 is one of the largest engineers' societies in the country. Professor Crabtree was graduated from the Massachusetts Institute of Technology in 1889. He has been connected with the Faculty at Carnegie Tech since 1906."

The Editors of The Review have promised the Secretary enough money to buy a box of candy for each good batch of notes sent in, so the classmates are urged to participate in this worthy plan by sending the Secretary such notes of interest as come to their attention. Many thanks to those who have already done so.

The Fourth Book of '89 is out and has been sent to the mailing list. Those who have not received their copy, please speak up.

Walter H. Kilham, *Secretary*,
9 Park Street, Boston, Mass.

'91

Aiken, Hopton and Fiske attended the annual reunion of the Phi Beta Epsilon Fraternity at Bass Rocks, Gloucester, on June 6, 7 and 8. Gifford Thompson is the fourth member of the Class of '91 in this fraternity, but he was unable to attend as he was travelling abroad.

Dana, Spooner and Fiske attended the Thirtieth Annual Outing of the Underwriters' Bureau of New England on June 21. This was followed by a dinner at the University Club, Boston. Fiske was the second Manager of the Bureau and Gorham Dana is the present Manager.

F. Campbell Moore, Gorham Dana and the Secretary attended the meeting of the National Fire Prevention Association at Atlantic City in May, and Harry Young was at the same time attending a school convention at the same place. Harry writes that he registered for the Fire Prevention Convention by mistake so that we will hereafter consider him an honorary member of the Fire Prevention movement.

Harry Young writes that Charley Hammond was East for about ten days and that he has a son entering Tech next fall. Arthur Alley has bought a farm near San Diego and his new address is Terrace Drive, National City, California.

The following is taken from a St. Louis newspaper for June 30: "The funeral of Edmund A. Manny, retired architect, who died Monday morning, June 30, 1924, will take place from his residence, 5041 Westminster Place, at 2:30 p.m. today. He was born in St. Louis and educated in the St. Louis Schools and at the Massachusetts Institute of Technology at Boston. He also studied architecture abroad, and was in practice for himself in St. Louis since 1892. Manny was 60 years old. He is survived by his widow, Mrs. Edith Scarritt Manny; three children, Edmund S., Mary Sanford, and Charlotte Manny; a sister, Mrs. Mary Manny Wyman, widow of former Postmaster Frank Wyman, and a brother, Walter R. Manny of Larchmont, New York. Interment will be in Bellefontaine Cemetery."

The following letter from Gorham Dana dated July 30 gives some most interesting information in regard to Robert Ball: "I thought that some of the '91 boys would be interested in my visit to Robert Ball yesterday. My wife and I came over on the Montlaurin from Quebec early in July and after a few days in Scotland came down to

1891 Continued

London. Our friends, the Allens, took us to their country place in Stevenage over the week-end and from there we motored over to Cambridge in a pouring rain. After some hunting we found the Ball home, 3 Devana Terrace. Robert was there to greet us as big as life and twice as natural. He is a wizard at keeping his youth and looked hardly a day older than in the good old days at Tech. His wife and daughter are just as nice as he is but the boy we did not see as he was just returning from boarding school. He has a pleasant house with roses in front and a fine poultry yard in back. In his dining room he has a collection of family portraits running back about seven generations.

"He took us through the most interesting of the many colleges that go to make up the University. We were particularly fortunate in meeting the Master or President of one of the colleges who kindly showed us his own quarters with a wonderful picture gallery and many interesting rooms dating back several centuries. Everything is so old here that it has an atmosphere quite different from anything we have in America.

"Robert's work is in the Engineering College, where he is a Professor or whatever corresponds to that in our colleges. He says that as good an education in engineering can be obtained there now as at old M. I. T. This is due to a remarkable development during the past fifteen or twenty years since he has been there. The school is, however, small as compared with our technical schools.

"Robert had a lot of '91 pictures, mostly those taken at the Osterville outing and was very keen to place some of the faces that he did not remember. This made me feel that we ought to get out that famous class history that Charley Garrison worked so hard on, even if it is not complete.

"Robert wanted to be remembered to all the old boys and hoped some day to get back to a reunion.

"We are doing the battlefields at Rheims and Verdun tomorrow and next day, and next week we go to Italy for a short trip. The weather has been very cool and we are having a fine trip."

Morris Knowles of Pittsburgh, Pennsylvania, newly elected member of the Corporation of the Institute, recently made a brief visit at the summer home of Arthur E. Hatch, at Barrington, Rhode Island, while touring East with his family. Morris is as energetic as ever and is looking forward with pleasure to his duties connected with his new office and hopes while here to see more of his friends and classmates. As present Chairman of the Pittsburgh Planning Committee, his executive ability and good judgment will surely be of great help to the Corporation of M. I. T.

The Secretary recently received a letter from Herbert S. Kimball as Secretary of the Massachusetts Society of Sons of the American Revolution. The office of this Society is at 9 Ashburton Place, Boston, and Kimball writes that he spends a little time each day on this work. His engineering office is at 177 State Street, Boston, as heretofore.

The following is from the Lynn *Telegram* for July 21, 1924: "John F. Reynolds, a well-known citizen of this town, died at the Boston City Hospital, Saturday night, after an illness of two weeks. Mr. Reynolds was stricken with a cerebral hemorrhage while in Boston on July 10, and since that time has been on the danger list. He was fifty-five years of age. The deceased was born in Marblehead and has always lived here. He was a civil engineer and a graduate of the Massachusetts Institute of Technology. No near relatives survive him."

Ernest Tappan announces his marriage on Saturday, October 11, to Miss Myrtle Ethelin McLaughlin. They will be at home after December 1, at 728 Commonwealth Avenue, Boston.

Henry A. Fiske, *Secretary*,
Grinnell Co., 260 West Exchange Street, Providence, R. I.

'93

In the early summer, on a trip to the Middle West, Dennie, still keeping up his reputation as live wire Executive Secretary of the Alumni Association, found time to look up some members of the class. His letter of July 25 to the Class Secretary reads: "I want you to know how much I enjoyed meeting your classmate William R. Copeland when in Milwaukee a few weeks ago. He is a splendid enthusiast and although I did not have time to avail myself of his hospitality, he seemed very anxious for me to visit his sewage disposal plant. In Minneapolis I tried to get in touch with Harry W. Joy, but could not find him listed in the 'phone book so the chances are he may have left the city. In Detroit I saw Messrs. Alden and Hawley, but was unsuccessful in seeing Messrs. Ropes and Sutter. I tried hard to find out what had become of Herbert Armstrong but the Detroiters seemed to know nothing of his whereabouts.

"Doubtless you know that Jack Hawley is now in Providence, R. I., in the Engineering Department of the Firemen's Mutual Insurance Company, 901 Grosvenor Building. He is quite a golf enthusiast and I was sorry that a week-end trip to Nantucket last

1893 Continued

Friday prevented me from renewing my golf acquaintance with him when he was up here as the guest of George Gilmore at Lexington."

Arrangements have been made for a fall meeting in place of the postponed summer meeting. Members of the class, with ladies, are invited to tea at the President's house on Friday, November 14, following which the Class of '93 Dormitory will be inspected. Following this, the regular dinner meeting of the class, for members only, will be held at the Algonquin Club at 7:00 o'clock, at which Dr. Stratton and other officials of the Institute will be guests.

Jim Boyd, who is now located at Portland, Maine, was appointed in August one of the three receivers for the Bath Iron Works who have the sanction of the court to complete existing, and to make new, contracts.

On June 16, 1924, a son, William Phillips, was added to Ed Densmore's family of four children.—Sidney S. Emery retired from business about three years ago. His home address is 2798 South Acoma Street, Denver, Col.

The Secretary has received a pamphlet, small but full of interest, on "Valuation for Rate Making," written by James Emery and printed by Ford, Bacon & Davis, Inc., of which Corporation he is Vice-President.

Wright Fabyan was appointed Chairman of the auditing committee of the Corporation.—E. J. Holmes is again a trustee of the Museum of Fine Arts, serving with President Stratton and Desmond Fitzgerald as representatives of the Institute.—Fred Keyes of New York called on the Secretary in September. He has entirely recovered from the serious accident which prevented his attending the 1923 Reunion and is looking better than for a long time.

Henry Morss, Assistant Treasurer of the Institute and a term member of the Corporation until last June, was elected a life member of the Corporation, in October. An account of a trip by water which Morss made this summer from Cleveland to Boston would make interesting reading, especially that portion of it describing shooting the rapids, if we could prevail upon him to write it up.

The Secretary has received the following notice from Engineering Foundation, of which he is a local representative: "By the will of Henry R. Towne, of Yale & Towne Manufacturing Company, who died on October 16, the endowment of Engineering Foundation is increased $50,000. This sum is bequeathed to United Engineering Society as the trustee of the Engineering Foundation funds for the four national Societies of Civil, Mining, Mechanical and Electrical Engineers.

"This bequest establishes the Henry R. Towne Engineering Fund, the income of which is to be expended by the Engineering Foundation Board for the purposes stated in its charter 'the furtherance of research in science and in engineering, or the advancement in any other manner of the profession of engineering and the good of mankind.'

"Mr. Towne was an engineer and manufacturer, a Past-President of the American Society of Mechanical Engineers and active in its affairs. For many years he was a friend of Ambrose Swasey, the founder of Engineering Foundation. Like Mr. Swasey, he was a believer in the value of engineering research. This contribution to Engineering Foundation is a notable testimonial by a man of unusually wide and varied interests to the high importance of research to the engineering profession and the industries of our country."

Mr. Towne was the father of Frederick T. Towne, '93, who died in 1906, early in what gave every evidence of being a very successful career and useful life.

Frank Ashton is now with The Foundation Company, 120 Liberty Street, New York City; S. Parker Bremer is with Parker, Wilder & Co., 97 Chauncy Street, Boston; John C. Clapp is practicing architecture at 3 Hamilton Place, Boston, and Edward D. Densmore is a member of the firm of Densmore & LeClear, Park Square Building, 31 St. James Avenue, Boston.

Frederic H. Fay, *Secretary*,
200 Devonshire Street, Boston, Mass.
George B. Glidden, *Assistant Secretary*,
P. O. Box 1604, Boston, Mass.

'95

Frank Hall Marmon, aged twenty-five, the son of Walter C. Marmon, '95, II, President of the company manufacturing the well-known Marmon automobile, was killed on October 11, when his car skidded and turned over near Indianapolis. He was blinded by lights from an approaching car. He leaves a wife, formerly Miss Newton of Athol, Mass., to whom he was married early in 1923, and an infant daughter.

The first luncheon of the season was called by J. C. Wolfe in September, at the Technology Club of New York.

There is supposed to be a short account of the European adventures of the Secretary of the class in another part of this issue of The Review.

Albert S. Gottlick, '91, has sent us the following letter about the death of John A. Gurd, '95. "He left the office apparently in perfect

1895 Continued

health on a Friday afternoon expecting to return the following Monday. He was operated on for appendicitis on Tuesday and died the following Saturday morning, June 21, 1924.

"I am taking up his incompleted work and am now carrying through the Greenville Branch Library in Jersey City, which is referred to in the newspaper article."

From *The Free Press*, London, Ontario, for July 26, 1924: "John Abram Gurd, who died recently in New Jersey, was a son of John R. Gurd, 48 Blackfriars Street, of this city.

"The late Mr. Gurd was an artist and architect of high standing, and was the designer of the Pavonia Library in Jersey City, N. J.

"He was born at Morris, Ill., on January 7, 1870, and the family came to London when he was two years of age. Here he received his earlier schooling and from the first was a worker that promised to make his name. At a very early age he was graduated from Petersville School, now West London, with the highest honors possible, receiving a gold medal, donated by Mr. Peters, after whom the suburb had been named. At the age of eighteen he went to Chicago and here began his work in an architect's office as a draughtsman. Later he entered the Massachusetts Institute of Technology in Boston and was a student there during 1893–1894, taking the course in architecture with the Class of '95. He then went to Paris and entered the École des Beaux Arts, joining the atelier of M. Laloux in 1897. While in Paris he assisted in the construction of the United States Government building for the exposition of 1900, and for this was decorated by the French Government. Some time after the close of the exposition of 1900 he returned to his country and opened an office in New York City, where he practiced architecture until the time of his death. He also gave considerable time to the teaching of architecture at the Pratt Institute in Brooklyn and at the New York School of Fine Arts.

"During the War he was associated with the Y. M. C. A. in the designing and construction of their huts for the various military camps. Among his other buildings are: numerous country houses on Long Island and in New Jersey, the Pavonia and Bergen Branches of the Jersey City Library, the Englewood Cliffs, Emerson and Von Steuben Schools and the Parish House at River Edge, N. J. At the time of Mr. Gurd's death he had the plans for his largest library on the draughting boards, nearly ready for the committee. This is to be the Greenville Branch of the Jersey City Library.

"He was an artist of very considerable ability, particularly in water colors, and the best of his work is now in his father's home on Blackfriars Street, of this city."

The Schenectady (N. Y.) *Gazette* for July 23, 1924, reprints a full column of an interview in the New York *World*, by Gerard Swope, on the subject of Wages and American Business Methods. Among other things, he says: "There is no reason why high earning power on the part of the worker should not be combined with low manufacturing cost on the part of the employer. It seems to me that very often there is far too little attention given to methods of production. The so-called labor problem is an intensely human one and it must be solved on a human basis or not at all. One of the first things to do is to get the worker interested in his job, and one way to do that is to make him feel that the job is worth doing and worth doing well.

"There is one effect of reducing costs by improved methods of manufacture, which curiously enough does not seem to be generally appreciated. When you can reduce costs, prices may also be reduced and you are then able to reach another and much larger class of consumers. This has been especially true in the electrical industry where the improved efficiency of electrical apparatus and improved methods by public service corporations have made it possible to furnish electric light to the consumer at a price much lower than it was years ago."

Frank A. Bourne, *Secretary*,
177 State Street, Boston, Mass.

'96

The Secretary used about all of his ammunition in the last issue and therefore has not much to report at this time. A letter from Charlie Hyde states that he is getting back on his feet after the Berkeley fire of a year ago. He is rebuilding on the old site which was beautifully located, overlooking the bay, and he hopes to have the house ready for occupancy early in November. Charlie emphasizes that the latchstring is always out and one of the disadvantages of living in the far west is that so few '96 men ever get around to call upon him. The Secretary can report from experience that Charlie's hospitality is of the finest.

Various reports have appeared in the daily papers regarding a new X-ray apparatus invented by Dr. Coolidge which was said to possess wonderful ability, even to the point of locating the proverbial elusive collar button. Accordingly, the Secretary wrote Coolidge and has received from him the following excellent description.

The new unit differs from its predecessors mainly in this, that it is much smaller and that the whole high tension system is completely enclosed in a grounded metal container. Owing to this last circumstance there is, with this system, no external electrostatic field and hence no danger of accidental electric shock. The complete outfit measures 6½ by 8¼ by 10½ inches and weighs about twenty pounds.

1896 Continued

The X-ray tube is designed for 10 milliamperes at 56,000 volts (max.). It is 4½ inches long and has a bulb diameter of 1½ inches. It operates in the same oil with the high voltage transformer and rectifies its own current. The unit was developed for intraoral dental radiography, but because of its small size, simplicity of operation and freedom from external electric field it should find other applications. In industrial research, it can be employed for easy radiographic or fluoroscopic work, to differentiate between substances which do and those which do not fluoresce under the influence of X-rays, to ionize gases, to dissipate electric charges on the surface of non-conductors, or with the help of an electric field to give to the surface of either a conductor or an insulator an electric charge of either sign.

It can be used for many physical demonstrations, such, for example, as the Laue experiment, in which it enables one to show the diffraction of X-rays, not only by the photographic but also by the fluoroscopic method. A detailed description of the outfit is appearing in the *Journal of the Optical Society*.

A letter from Joe Clary states that he and Burgess were present recently at an impromptu dinner in Washington to President Stratton. Clary expects to enter his son in Technology next fall. The boy is now taking a course at George Washington University.

Rockwell went South as usual this summer but his trip was considerably shortened. He and Ben Hurd spent a few days together at a private fishing camp in Virginia. No details have been supplied as to the number of fish caught or the exact procedure, but it is understood that a good time was had by all. During the summer he sent Mrs. Rockwell off to Maine at Kennebunk and went down himself over the week-ends. It was curious that Rockwell and Billy Anderson were actually located within a few miles of each other this summer in Maine and neither one knew that the other was there, so they did not meet.

Charles E. Locke, *Secretary*,
Room 8–109, M. I. T., Cambridge, Mass.
J. Arnold Rockwell, *Assistant Secretary*,
24 Garden Street, Cambridge, Mass.

'97

Charles W. Bradlee was married on June 17 to Miss Agnes Josephine Moller. Charlie has for lo — these many years served as the corner-stone of the Class' Temple of Bachelordom; perhaps at this late day he was the only remaining stone left in the structure. We have worried quite a little as to who would look after our Executive Committee head, but now we can put our anxieties away for all time. We all extend our best wishes to Mr. and Mrs. Bradlee. They will be at home at North Avenue, Kendal Green, Massachusetts.

Jere R. Daniell, XIII, is now engaged in the construction of submarines in Spain, and his present address is: "Soc. Esp. De Const. Naval, Ap. 815, Madrid, Spain." He recently sent a short note with his check for alumni dues asking if Sustained Membership had been discontinued, which shows, of course, that he is still very much interested in Technology, although this interest is geographically far-fetched. In reply to his note, Mr. Denison told him that he was sure all of the '97 men would have been delighted if he had been able to be with them for the class outing.

Mr. Alex R. Holliday of Indianapolis advises us of the death on June 11 of our classmate, Carl Schuttler, in Chicago. His death by accident occurred at the end of a three or four-month illness, and, although very much shocked by the accident, his family find consolation in the fact that his sufferings are at an end.

Franklin Stetson, one of the leading paper manufacturers of New York City, died in that city in May of this year at the age of sixty years. He was a Phi Beta Kappa man, and was a direct descendant of Governor Bradford of Massachusetts.

John S. Eynon of Brookline, Mass., has severed his connection as general adjuster for the insurance agency of John C. Paige & Co., Boston, with which he has been associated for a period of twenty-eight years, and will retire from active business. He was recently given a farewell banquet and received a number of valuable gifts from members and officials of the company. Mr. Eynon and Mrs. Eynon have gone to San Diego, Calif.

Sewall Cabot, at present located in St. Paul, Minn., is doing research work as radio and electrical engineer for one of the large radio apparatus companies. Mr. Cabot is an exceptional musician, and in his radio work specializes in the electrical side of sound reproduction. He has developed the audio-frequency amplifying transformer to a high degree of perfection, and is an authority in this branch of radio study in this country.

Professor C. B. Breed, Course I, a member of the Institute Faculty, was called by the City Government and interested citizens of Lawrence, Mass., to inspect the course of the Spicket River in that city, and to suggest methods of improving its condition and eliminating its objectionable features. Professor Breed has served as advisory engineer in other cities, notably in Haverhill, Mass.

1897 Continued

Farley Osgood, Vice-President and General Manager of the Public Service Electric Company of New York, has just been elected President of the American Institute of Electrical Engineers. He won by a margin of 271 votes in a total of 7500, over Charles E. Skinner of the Westinghouse Electric & Manufacturing Co. After leaving the Institute, Mr. Osgood went into telephone work, later becoming General Manager and Chief Engineer of the New Milford Power Co., in Connecticut. From there he went to the Public Service Electric Co. in 1907 as Superintendent of distribution. He became General Superintendent in 1909, Assistant Manager in 1912, and in 1917 assumed the position that he now holds.

John A. Collins, Jr., *Secretary*,
20 Quincy Street, Lawrence, Mass.
Charles W. Bradlee, *Acting Secretary*,
53 State Street, Boston, Mass.

'99

The Class of '99 will be interested to know of the marriage of its Secretary to Miss Ruth Albert, of Washington. The ceremony took place on September 20 at the Little Church Around the Corner, in New York. After a short time at the Lake Placid Club, the couple have returned to Washington, where they will make their home.

The Secretary of the Class of '99 spent the summer in England. On September 8 he delivered the Third Annual Autumn Lecture before the Institute of Metals of Great Britain, on the subject of "Recent Developments in Non-Ferrous Metallurgy in the United States."

W. Malcolm Corse, *Secretary*,
1901 Wyoming Avenue, Washington, D. C.

'00

Owing to the Scribe's late return to the Institute after a summer's vacation, it happens that only one week intervened between calls for copy for the November and December Reviews. The result is this shortened column.

Hang you fellows, anyway! When it comes to writing letters you are poor bets. Fifty letters sent out last spring by yours truly have never been answered. Then you expect to see a column. If it wasn't for the *Press Clipping Bureau* and the writer's fertile imagination, news would often be scanty enough. Here is an item from the former service: "Dr. Arthur I. Kendall, Dean of the Northwestern Medical School, Chicago, has been appointed Director of the Department of Bacteriology and Hygiene at Washington University Medical School, St. Louis."

This is certainly good news and Kendall has our hearty congratulations and receives a black mark for failing to notify us of the fact. You fellows will recall him as a worshipper at the Biological Throne of Course VII in the good old days.

Last March we had a real reunion in Cambridge of twenty-seven members of the gang. Notifications are going out at the present writing announcing another one which will have passed into history ere you read these lines. In the next number we will tell you about it.

The ink was scarcely dry on the copy for this issue when there came to the writer the following letter from Bowditch. It was a regular life-saver and will long ensure Bowditch his position on the pedestal of class faithfulness. Thank you, Inky. "Knowing from my former experience as Secretary of the class how hard it is to get the fellows to write about themselves, and how interesting it is to hear about them, I am sending you a little news about myself with the hope that you may find space in the next Review for part of it. I wish there was some way to make the fellows realize how much their classmates like to hear about them, especially when you consider that we have been graduated nearly twenty-five years and there are a great many men who were good frends at Tech and who have not seen each other during that time. The Review is practically the only means of keeping up our former friendship.

"About the middle of August, Mrs. Bowdith and I put our camping outfit in the yellow bus and drove to Hollis, Maine, famous as the former summer residence of Mrs. Kate Douglas Wiggin Riggs. We camped on the edge of the Saco River, just below Salmon Falls Gorge on land formerly owned by the Appalachian Mountain Club. We made a permanent camp and were very comfortable, even having a Radiola to cheer us up on cloudy days. We experienced for the first time the sensation of having a tide in a fresh water river, and one morning our fireplace was threatened by extra high water due to the opening of gates above us to let logs down the river before the power plant below us opened its gates.

"We spent one day in Biddeford examining the mills of the Pepperell Manufacturing Company and the York Manufacturing Company. At the latter we met a Tech 1917 man who was a chemist in the Dyeing Department. He showed us the results of his experiments with the different dyes.

"I spent the rest of my vacation at Chocorua, doing chores about the place and enjoying myself as usual.

"A few weeks ago Vogel called on me. He came on from Youngstown, Ohio, where he is with the Youngstown Sheet and Tube Company to attend his sister's wedding. He was looking very well and wanted all the news I had about the fellows. I did my best to impress upon him the necessity of keeping the class informed of what he was doing.

"The first week in October I attended the meeting of the American Hospital Association at Buffalo as a delegate of the Faulkner Hospital, of which I am the Treasurer. The meeting was very interesting, and I met several interesting superintendents of hospitals. The exhibit of hospital supplies and furnishings was most complete."

Again this column becomes the bearer of sad news to the class. On August 16, Herbert Milton MacMaster died at Schenectady, N. Y., after a long illness of eighteen months duration. The fact did not become known to the Secretary in time for notice in the November number of The Review. Every man in the class will remember Mac. He was one of the most popular and active in class affairs. His cheery disposition and ready wit made acquaintance easy, and his splendid qualities won lasting friendship. It is hard to realize that he has left us and the twenty-five years that have nearly passed since many of us last saw him seem peculiarly shortened as we pause and count our loss.

MacMaster was born in 1878 at Marianette, Wis., and prepared for the Institute at the Northwestern University Preparatory School. At the Institute he pursued the course in Electrical Engineering and received the degree of S.B.

He was a member of Delta Upsilon of the M. I. T. Electrical Engineering Society. In athletics he was very prominent, occupying the office of President of the Technology Athletic Association, Vice-President of the Bowling Club, and being a member of the Varsity Relay Team and the 1900 Baseball Team.

After graduation he entered the employ of the General Electric Company at Schenectady, N. Y., remaining with them until the time of his death. His early work was connected with the Testing Department but he transferred in 1903 to the Sales Department and later to the Supply Department. He was, at the time of his death, Secretary of the Sales Supply Committee and Assistant to the Manager of the Supply Department.

The same qualities that won him popularity at the Institute made him very much in demand at Schenectady. He was a member of the local Mohawk Club and the Mohawk Golf Club, serving actively with the latter on the Board of Governors and as Chairman of the House Committee. He was also a member of the American Institute of Electrical Engineers.

1900 Continued

He leaves a widow, Mrs. Nell Horstmyer MacMaster of Schenectady, to whom he was married in 1906. To her the class extends its deep sympathy.

Miss Johannah C. Swinson called at the Institute recently and gave an interesting account of her activities since graduation. As noted in the First Decennial Record, she was for some time in the real estate business with an office in Boston, but more recently she has been associated with Roger Babson in the Babson Statistical Bureau. She reported having recently seen Miss Cora Hopwood of Worcester.

George E. Russell, *Secretary*,
Room 1–272, M. I. T., Cambridge, Mass.

'01

Bill Sweetser writes from Orono, Maine, where he is Professor of Mechanical Engineering, that he has just bought a home in the center of the town, one of the charming old frame dwellings of characteristic post-Revolutionary structure, and has been remodelling it. Your Secretary, an amateur in old New England homes, trusts that in the remodelling no touch of modernity is allowed to creep in. In view, however, of the recent activities of the University of Maine, finding expression in the columns of the daily newspapers, one is forced to fear. Imagine our honest Bill surrounded by the diabetic cornstalk; the chicken who cannot even say, "Ma's an incubator," but rests upon the parental bosom of ultraviolet light; and finally, and most recently, the latest discovery of the versatile president of the institution. But then, Bill has Frank Kanaly for company which must be some comfort in this new era of amazing and stupendous local discoveries. What Bill writes of his house is both matter-of-fact and charming, but in a few weeks we may hear of the self-propagating steel bridge, or the application of the principle of relativity to practical transportation problems from the pen of our erstwhile friend and associate. There is a Latin phrase here that covers the situation but I refrain from quoting in a just recognition of the embarrassment that would be the portion of the less erudite fraction of the class. Bill is indulging in outdoor sports and states that his indoor amusement consists in the ominous pastime of restoring furniture. This might imply either the workings of a guilty conscience, or the transmutation of a Grand Rapids product into a genuine Phyfe sofa. Bill, by the way, is going to attend the Anniversary next spring. You may remember that there is to be one. He is invited to bring a diabetic cornstalk with him, as sugar is sugar, whatever its source, and it makes a good starting point.

Al Weil writes from New York City, where he is the President of the Electro Sun Company. He adds modestly that the name indicates energy and light, which seems to be bad physics. The company is concerned with the manufacture of blueprints and photostats, as well as dealing largely in materials. It is probable that there are many classmates in New York who may be dealing with the firm, and I know that Weil would be glad to hear from any of them. The cordiality of his note leads me to feel that heat might be suitably included in the forms of energy (you see I must revise) in which he deals. Of the two residual forms usually bracketed under this caption, Al certainly had one, and I think New York supplies the other. By the way, Weil is a charter member of the group pledged to attend the Anniversary next spring.

Billy Farnum is also domiciled in New York, and is local traffic engineer with the American Tel. & Tel. Co. Your Secretary is personally indebted to him for numerous courtesies offered in his professional capacity. I would call attention to other members of the class resident in New York, and unhappily subject to the mercies of the reduced members of the nobility who preside over the switchboard, that Bill can be a mighty helpful citizen in certain acute problems of administration. I hope he will forgive me for this unsolicited testimonial when swamped by the appeals of the faint and weary.

Vermilye has ceased to be a Turk in Providence, and has become an expert in color in New York. To the thinking mind, there is a connection between the activities. Bill is the executive Vice-President of the National Aniline & Chemical Company, and I can testify that the colors are very fast. It is odd that he, whom Freddy Boyd could never call else but "vermilion," should have gravitated into this most appropriate occupation. Incidentally, and here I speak with a gravity foreign to my buoyant nature, Bill's company is making the best stains and indicators produced in these United States. Bill plans to add a little color to the Anniversary which, I may have forgotten to mention, comes next spring.

Loring Danforth, even as an undergraduate, was distinguished for caution and what I might call canniness. In setting forth his response to my request for information, he gives his residence as 129 Windsor Avenue, Buffalo, N. Y., and suggests that business is transacted and mail received at 72 Ellicott Street in the same town. How our boyhood habits persist in our later years. Dan is President of the John W. Danforth Company, general contractors for mechanical equipment, heating and ventilation, and power plant piping. Dan writes that he is enthusiastic about the anniversary. By the way, I may have forgotten to mention that it is a Class Reunion,

1901 Continued

and comes next spring, and is heartily in favor of the American plan scheme which was proposed in the circular letter sent out last summer. Loring promises to be present, and as one of the sturdy band who participated in the joyous gathering in 1921 I am certain that his coming will be an inducement to many others.

Roger Wight is still so busy, not merely with the Liverpool, London and Globe interests of his firm, but also the more recently acquired Star connection, which I assume includes intrastellar space, that he has not found time to cross the orbit of our local gatherings. Roger states that he is prepared to place insurance of any kind for any member of the class, anywhere, where insurance is writable. He closes his note, however, with a dirty dig, when he offers to issue a tourist policy giving full protection against everything, excepting medicine. Perhaps, however, he confuses the gentle art of healing with the more robustuous performance of the violator of the Volstead act. Such mistakes have occurred, thanks to the pernicious practice of prescription writing.

Al Higgins has apparently left his strawberry and other small fruits kingdom, in the neighborhood of Falmouth Foreside and, please note, the broad Atlantic Ocean, and gone back to Chicago. To my searching questions concerning a variety of pertinent personal details he replies "Same as previous." I hope some member of the class looked in on the strawberry kingdom (contiguous to the Atlantic Ocean, please remember) during the summer.

One very welcome word came in the latest lot of replies from Charley Rockwood, from whom I, at least, have had no communication since early in his Technology career. Some of the fellows may remember that Charley chewed a luscious and succulent compound known, I believe, as Pig-Tail Twist (it was blonde and most intriguing, but an unsafe venture for the uninitiate) and that he was one of that band of hardy spirits who decorated the window ledge outside the windows of the drawing room at the top of Rogers. Charley chewed outside the window, giving the casual passerby concrete evidence of his generosity, and his aim was unerring; while dear old Burrison hovered inside torn between a fear that Charley would fall and an unwillingness to interrupt his vocation. The sweet scent of that golden yellow twisted comestible comes back to me after the laps of years. I never tasted it, even though Charley was generous to a fault. A grandfather who had followed the sea gave me my lesson at an early age. Charley, after a silence of nearly a quarter century, is resuming contacts with his erstwhile pleasant, albeit disreputable associates, and plans now to take part in the reunion, which I should have mentioned earlier, comes this spring.

In all seriousness, there is perhaps a very especial pleasure in the thought of seeing once more those of our number who have been so long out of touch, and there was quite a little group, in Freshman year, who added much to the gayety of life or, as Freddy would say, with his inimitable Paris (Ohio) accent, "Joie de vivre," from whom we have been separated for many years: the mellifluous Jack Bronson, the diplomatic Reuben Clark, the attenuated and elegant Douglas Jillson, to name but a few of the many that comprised that galaxy of Freshman year. It is to be hoped that they will all take heart and join us in the reunion, which I should have mentioned before, takes place next spring.

Allan Winter Rowe, *Secretary*,
295 Commonwealth Avenue, Boston, Mass.
V. F. Holmes, *Assistant Secretary*,
131 State Street, Boston, Mass.

'02

Something is always happening to Lou Cates. The Salt Lake *Tribune* for October 4 carries the following interesting information in regard to another honor which has come to our distinguished classmate: "Sacramento, Calif., October 3.—Louis S. Cates of Salt Lake City, Vice-President and General Manager of the Utah Copper Company, was unanimously elected President of the American Mining Congress at the close of its annual convention here today, to succeed H. W. Seaman, of Chicago. Mr. Cates was Vice-President of the organization last year."

At the meeting of the Land Grant Colleges Association held in the New Willard Hotel, Washington, November 12 to 14, Dean R. L. Wales of Rhode Island State College will discuss the coöperation of local engineering societies and similar organizations with college work.

Since the notes for the November Review went to press the Sawyer Construction Company (Adrian) have taken contract for a Christian Science Church to be erected in Newtonville, Mass., so that now we can fairly say that Adrian is off. We look for him to do large things in construction work.

Milton Dunham has been heard from. He is still at the Tres Amigos Mine, Abangares Gold Fields, Punta Arenas, Costa Rica. Milton is one of our few remaining bachelors, but when he comes

1902 Continued

North, which will probably be next year, we shall have to keep a watchful eye on him, — to keep him so.

Frederick H. Hunter, *Secretary*,
Box 11, West Roxbury, Mass.
Burton G. Philbrick, *Assistant Secretary*,
276 Stuart Street, Boston, Mass.

'03

Aylsworth and Millard have forwarded letters received during the summer from G. H. Garcelon. Garcelon is with the Westinghouse Electric and Manufacturing Company at East Pittsburgh, where he has been since graduation. He is Manager of the Small Motor Engineering Department with part of his gang located in East Pittsburgh and the rest at their other factory in Springfield, Mass., between which cities he frequently commutes. In 1909 he married Miss Frances Babb in Wilkes-Barre, Pa., and as Garcelon says, they are now doing their best to keep track of three boys aged seven, ten, and thirteen years. He extends a cordial invitation to any '03 men to stop in and see him when in either city.

We appreciate the following addresses of '03 men which Garcelon has supplied: Walter C. Rott, 7126 Jonathan Place, Pittsburgh, Pa., Silas C. Merrick, 1324 Third Avenue, New Brighton, Pa., Frank C. Reed, c/o Westinghouse Electric & Mfg. Co., Huntington, W. Va.

We also have from Millard a letter from Cecil H. Haggart, structural engineer, 331 Fourth Avenue, Pittsburgh, Pa. He reports that Morris Knowles resigned last spring as head of Board of Review Zoning Commission on account of press of private business.

Robert A. Cook, whose boyhood was spent in Woonsocket, and whose first railroad employment was as a clerk in the Roadway Department offices in the Union Station, Providence, has been made chief engineer of the Chicago & Alton Railroad. Mr. Cook was an engineer student in quest of practical experience when, during his summer vacation of 1901, he was employed as a clerk in the office of the late J. M. Torr, roadmaster of the Worcester Division of the New Haven Road, Providence. Mr. Cook is a son of the late James E. and Annie W. Cook of Woonsocket, his father being remembered as a bank and school official here. He was graduated from Woonsocket High School in 1899 and from the Massachusetts Institute of Technology in 1903. In the summer of 1902 he performed his first railroad work as a road department clerk for the New Haven in Providence and the following summer as an assistant in the division engineer's office of the Baltimore & Ohio in Philadelphia. On graduating in June, 1903, he entered the Engineering Department of the Chicago & Alton Railroad as a roadman for a year and assistant engineer on maintenance the ensuing five years. In 1909 he was made assistant engineer in charge of track elevation and terminal construction at Joliet and Chicago and on bridge and other construction at other points nearby; in 1913, assistant engineer in chief engineer's office, Chicago; in 1914, valuation engineer, and after ten years service in that position has been made chief engineer. In 1917 Mr. Cook was commissioned captain of engineers, but was shortly after given inactive status by request of the railroad company which complained to the War Department that the drafts on its engineering offices had been so heavy as to cripple it in necessary undertakings.

Miss Ruth Sherman, daughter of Rev. and Mrs. Warren C. Sherman of Ashby Avenue, and Dr. Richard C. Tolman, distinguished chemist, were married on August 5 at the home of the bride's parents. Only the immediate family witnessed the ceremony which was performed by the father of the bride. Mrs. Tolman is a graduate of the University of California in the Class of 1917 and is a member of the Kappa Kappa Gamma sorority and of the Phi Beta Kappa and Prytanean honor societies. She is the sister of Miss Lillie Margaret Sherman, executive secretary of the University Y. M. C. A. Dr. Tolman is a graduate of the Massachusetts Institute of Technology and received his Ph.D. in physical chemistry. He is now the physical chemist for the California Institute of Technology of Pasadena. The couple have not made their plans definitely but within a few weeks will make their home in Pasadena. Dr. Tolman is the brother of Professor E. C. Tolman of the Department of Psychology at the University of California.

An Appalachian Mountain Club engagement was announced last week, that of Miss E. Dorothy Pierson of 6 Alwington Road, Brookline, to Mr. Howard S. Denham of 98 Grove Street, Lowell. The engagement was announced at an informal gathering of Appalachians held at the home of Miss Pierson's sister, Mrs. Frederick E. Olfene of 8 Parker Road, East Lynn. Miss Pierson is a Wellesley graduate and has been a member of the English Department at Brookline High School for six years. Mr. Denham is a

1903 Continued

graduate of the Massachusetts Institute of Technology, Class of 1903, and both are active veteran members of the mountain-climbing association.

The following letter to Professor Charles E. Locke, M. I. T., from the Chemical Publishing Company of Easton, Pa., has been passed along to us: "We have in press at the present time a book on Structural Metallography by Professor H. B. Pulsifer, of Lehigh University, which is an illustrated text with laboratory instructions for students. The book is profusely illustrated, containing 146 micro-photographs. Many of the prints are at 1000 diameters magnification and reveal structures with unusual clearness. The text is primarily intended for students who have the desire to study metal structure at firsthand, whether in or out of college. Engineers, chemists and scientists should find the text valuable because it gives an especially clear and convincing account of the materials in which they are interested.

"The best of metallography has been condensed into a short treatise which the student can comprehend and use as a guide for his own laboratory exercises. A list of fifty-six of the most important contributions to the science of metallography is given to which the student may refer for details and other information not included in the text. The book is fully indexed. Because of its completeness, brevity, and clear exposition of the most important part of metallography the book should be in the hands of every student studying the science."

Congratulations to Pulsifer on this new accomplishment which represents a vast amount of patience and painstaking labor.

Chester S. Aldrich, *Secretary*,
10 Beaufort Road, Jamaica Plain, Mass.
Gilbert H. Gleason, *Assistant Secretary*,
25 Huntington Avenue, Boston, Mass.

'05

Eugene Lombard has been located at the Park Works of the Crucible Steel Co., Pittsburgh. He writes: "The most recent history is 'Born to Mrs. Eugene Lombard, Hookstown, Pa., twin girls.' As we now have three boys and twin girls, we have in reality a full house.

"Have been doing construction work for the Crucible Steel Co. of America for the last two years, consisting of alterations, installation of new machinery and building construction. At present, I am located at the Park Works in Pittsburgh, where we are electrifying the 10" mill and putting in modern equipment.

"Went to the M. I. T. annual dinner at the University Club and met Jack Flynn, '05, and a few of the regulars who always try their best to make the affair a success. I may be old-fashioned but when it comes to trying to sing the Stein Song with a glass of water, it simply can't be done properly. The moving pictures that the '23 boys had taken were shown and they alone were worth the price of admission. If we could have had a picture taken of that occasion when we took the Freshies flag down from across Boylston Street, it would bring the old days back very vividly to the '05 class.

"I will try to make the Twenty-year Reunion next year and then you may be able to drag more history out of me."

Jim Barnes, President of the Louisville Railway Co., was elected fourth Vice-President of the American Electric Railway Association at the convention at Atlantic City in October. For the previous year he had been a member of the Executive Committee and of a special committee which made an extensive report on the question of property valuation.

The following item is taken from the *National Petroleum News:* "Ben E. Lindsly has been employed by the U. S. Bureau of Mines especially to start work on an investigation of the use of vacuum in oil wells. The investigation will be directed into the effect of vacuum on production of oil and gas. The bureau also will try to develop the amount of vacuum necessary to increase oil production without increasing the gas production to the point of waste, or in other words, exhausting the well's expulsive power uneconomically. Mr. Lindsly, who is a graduate of the Massachusetts Institute of Technology, has had about fifteen years experience in the oil business. He was formerly connected with Paul Paine, in California, and more recently has lived in Ardmore."

Max Cline, Chief Chemist of the International Paper Co., Glens Falls, N. Y., and the leading authority in this country, we are told, on the chemistry of wood pulp, has this to say: "On a recent trip from Boston to Franklin, N. H., I had become absorbed in reading Al Smith's speech in Manchester, N. H., when a young mountain suddenly settled itself aside of me and erupted, 'Good morning, you're getting to be more of a tub than ever; how's business?' I looked blank for a few seconds at the mastodon, but recognized finally, under the thatch of grizzled hair, incased in the growth of twenty years, the 1905 live wire, Andy Fisher. 'Glad to see you again, Fisher, but when you talk of business and the grief in the clothing, stocking, glove, or lingerie lines, you have me wrong. You imagine me to be Myron Helpern, flattering me financially but knocking me physically, as Myron has only half the hair on his scalp that I nurse and has twenty-five pounds of fat the advantage of me.'

"The few hours of Andy's company was a treat. He effervesced with good fellowship. You were Tech and '05 and that was sufficient to make you the right sort. There was no direct boosting for Tech or '05, but he was making you feel that you were missing a lot by not taking a more active interest in the class or the Institute. I made a silent resolution to drop you a line at the earliest opportunity.

"By being with the same corporation and the same department of the corporation since graduation, I may have established a class record. It's still a puzzle to me whether this is to my credit or the reverse. Many of my classmates may think that this indicates lack of pep and fatty degeneration in the cranium; others might believe that I am working for an easy-going, good-natured corporation. It's all a part of that eternal question: 'Am I getting the most out of life; am I doing the most for life?' Any '05 man, within striking distance, whether it's to gambol in the Adirondacks or gamble at Saratoga, is cordially requested to look me up and judge for himself."

Elliott Lum, still with the Western Electric Co., has moved to Nashville, Tenn.—Bob Gardner was some time ago reported in San Pedro, Calif. Maybe he went to salvage the destroyers that went on the rocks. At the earlier report, he was still with the wrecking company at New London, Conn.—Henry Stevenson has moved to North Andover, Mass., but won't tell why.—Frank Payne is still living at Slough Bucks, England. What a pretty name!

The Iron Age reports a most interesting paper, evidently read before some learned society though the clipping does not include that detail, on "The Relation between Rockwell and Brinell Hardness Scales" by Professor Irving H. Cowdrey.

Frank Riley writes from Newton Highlands: "I have been out of touch with the '05 fellows for a good while now and I suppose there will be nothing going on until the fall. But when you get the class luncheons started again, I hope you will let me know of them in some way.

"I have been developing some new machines during the past two years which has required my jumping around the country pretty lively but the missionary work is now over, I think, and this fall I plan to stick right close to Boston.

"My sixth youngster was born in December, so you see it's about time I began to stay put."

On September six, Charles Dean Klahr was married to Miss Helen Shurtleff of Wilmette, Illinois. Seedy and Mrs. are at home at 715 Liberty Street, Clarion, Pa.

Ralph Patch, President and Pharmaceutical Engineer of the

1905 Continued

E. L. Patch Co., Stoneham, Mass., still partially affiliates with '05. In October he delivered a radio address, as President of the Stoneham Rotary Club, from the Edison portable station WHAT. Nobody seems to have tuned in on him, so we don't know the subject of the address, but presume it referred to Ralph's latest product, the cod liver oil with the nectarine taste. Full particulars upon application.

Clarence Gage writes from Evansville, Ind.: "Am glad to hear that 1925 will bring a big reunion. I have attended but two class affairs since 1905 because I have never been able to get back but have been planning for two years to get to Boston in 1925. Though my home and that of Mrs. Gage is in Woburn, we have been back but once since 1909 and even then I did not see the new M. I. T. buildings.

"Since 1906, I have lived, dreamed and eaten steam shovels. In the last two years, it is changing to Diesel instead of steam but only a different form of the same diet. In 1906, I went to Panama to work for Flynn, '05, and worked there on steam shovels until I came back in 1909. In 1910, I went to Cincinnati and was chief draftsman with The Ohio Steam Shovel and Dredge Co. until August. I left them, went East, got married and was with the Marion Steam Shovel Co. until January, 1911, when I went with the Bucyrus Co. of South Milwaukee, Wis., and have been with them ever since. I started in the drawing room, working up through the various stages of Chief Draftsman, Engineer, etc., until, in 1919, I was transferred to their Evansville, Ind., plant as Assistant to the Superintendent. In November last year, the Superintendent left and I stepped into his shoes.

"Of course, the company I work for is the largest manufacturer of excavating machinery in the world and exports its machines into every corner of the earth from above the arctic circle to New Zealand. The Evansville plant employs over 450 men, has run day and night for more than two years and builds the smaller sizes of machines (of the revolving type only) from 25 to 55 tons shipping weight. Just now we are putting them out at the rate of eighteen per month and this is just about our maximum capacity. We build machines with a steam engine, gas engine, semi-diesel engine or electric motor as the motive power.

"Oh, yes, I have a girl in the eighth and a boy in the fifth grade. Am Vice-President of the local Engineers' Club and a member of the Chamber of Commerce. Drive a Reo touring and have started in learning golf this summer.

"Is that enough?"

Roswell Davis, *Secretary*,
19 Thorndike Street, Beverly, Mass.
S. T. Strickland, *Assistant Secretary*,
26 Pemberton Square, Boston, Mass.

'07

The past month has been a dry one for news from '07 men. We have but one event to record, but, that is an important one. In a certain Robinson family, on September 26, 1924, John La Forge Robinson, son of Mr. and Mrs. Winslow D. Robinson of 10 Hyde Street, Newton Highlands, Mass., first saw the light of day. This makes the fourth child that Robbie has. Congratulations!

Bryant Nichols, *Secretary*,
2 Rowe Street, Auburndale, Mass.
Harold S. Wonson, *Assistant Secretary*,
W. H. McElwain Company, Manchester, N. H.

'09

John E. Otterson has resigned as President of the Winchester Repeating Arms Company, but still continues on the Board of Directors as a trustee of the Associated Simmons Hardware Companies, and as President of the Winchester Simmons Company. He is also a former President of the New Haven Chamber of Commerce.

Otterson, who is a graduate of Annapolis, came to the Winchester Companies from the New York Navy Yard. Starting as General Superintendent, he rose rapidly in the Winchester organization, becoming a Director of the Winchester Repeating Arms Company in February, 1916, Vice-President in September of the same year, and in February, 1917. assumed the position of General Manager. He became President of the Winchester Repeating Arms Company in March, 1919, and President of the Winchester Simmons Company in 1922, when the two manufacturing and distributing organizations were immerged.

William Van Valkenburgh has opened an office for the practice of architecture in Conway, Arkansas.

Charles R. Main, *Secretary*,
200 Devonshire Street, Boston, Mass.
George A. Haynes, *Assistant Secretary*,
186 Lincoln Street, Boston, Mass.

'11

Speaking of vital statistics, George Wheaton Denison made his appearance at the home of Mr. and Mrs. Orville Boardman Denison on October six at 1:59 p.m., their third child.

Lloyd Cooley, X, dropped in early in October to say hello and renew old times with ye Sec. He was up here recuperating from an operation and soon after returned to Baltimore to resume his alcoholic duties. No, you're wrong, Cyril, it's an industrial alcohol concern!—It was also a delight to see Kes Barr, II, debonair as ever, here at Tech in mid-October. Kes is still going big with the Youngstown Sheet and Tube Company out in Ohio and was East on a business trip.

H. Rossiter Snyder, IV, of whom we have heard little since our undergraduate days, recently wrote in from Cairncroft, Guilford, Conn., as follows: "I wonder if some of the other members of the Class of 1911 are beginning to feel that they are growing older as I do. The Institute seems a long way back. Perhaps it is because I lived a whole extra lifetime during my ten years in Uncle Sam's Navy and spent more time than Nature normally intended, in travelling several hundred thousand miles over the oceans where no grass grows and one can't keep a dog, or a car, or have a garden or lots of the other human joys, that I feel this way.

"And with this passing of time I have grown more chary of talking about myself, the which I consider a poor subject if I had one to choose. But here is a bare outline; I resigned from the regular Navy in 1919, went to California for a year and a half, came back East and did very well in civilian business in Philadelphia for two years. Thereafter, I was able to realize my ambition of settling for permanent headquarters on the Connecticut coast within practicable distance of all points of business interest. Here I have a few pretty acres and a nice old New England colonial home and am able in odd moments to once more get my feet on the ground, as it were. I still keep my service connection through the Naval Reserve Force which I joined after leaving the regular service. Last summer I opened a semi-military, junior boys' camp on Lake Quonipaug, which started propitiously, and I expect to give my time to that for many summers to come. This is conveniently located only eight miles north of my home in Guilford, and twelve miles from New Haven, two hours from New York and five from Philadelphia, so I feel quite as much in the center of things as I want to be for the future, yet having the out-of-doors."

Sam Blum, VI, is still devoting all his spare time, when not employed in the Engineering Department at Boston City Hall, to musical accomplishments and his famous dance orchestra has just signed a contract to provide music for the winter season at the Famac Inn, on the Framingham-Milford Road, Framingham, Mass.

Harold Davis, I, has been down here at the 'Stute a couple of times during October in the interests of the Nashua Gummed and Coated Paper Company, with which he is associated at Nashua, N. H., and always makes it a point to drop in. All other '11-ers are urged to do likewise when in Boston or Cambridge. It is also a pleasure to meet Hal Jenks, VI, from time to time in Central Square, Cambridge, he being now with the Cambridge Electric Light Company at its Riverway Power Station.

Jack Herlihy and the writer have decided to revive the custom of having a 1911 get-together on the eleventh day of the eleventh month and so are planning a dinner meeting at Walker Memorial for that evening, which will, of course, be covered in next month's class notes.

Why write the last line — you all know it!

Orville B. Denison, *Secretary*,
Room 3–207, M. I. T., Cambridge A, Mass.
John A. Herlihy, *Assistant Secretary*,
588 Riverside Avenue, Medford, Mass.

'12

The Class of 1912 stands in thirty-sixth place, out of a total of fifty-seven graduating classes in the percentage of members paying dues to the Alumni Association, our per cent being 19.1 or a little less than one in five.

This is a record which we cannot be proud of and your Secretary hopes that each one will consider himself a committee to secure at least one new member from among his friends. We can put ourselves in first place by doing this as 29.9% is the figure for the Class of 1924, followed by 27.7% for the Class of 1888. Please write me for application blanks if you can secure your new member.

J. A. Tillinghast, VI, was navigating officer on the *Yawl Hutoka* in the New London, Bermuda, schooner race last June. Jim proved his navigating ability by landing his ship in first place for their class.

Your Secretary had the pleasure of shipping as crew on the schooner *Hathor* of Marblehead in the same race. By dint of good seamanship, the *Hathor* placed second boat in elapsed time and second in her class. Other than this, nothing need be said of the stay in Bermuda.

Adolphe Eisenbourg, VII, is leading the best jazz orchestra in Boston. He was at Terrace Gardens during the summer and is now at Cook's for the winter. Radio fans can pick him up nearly every evening through Station WEEI, of the Boston Edison Company.

F. H. Dierks, II, is located atKansas City, Mo., as Vice-President of the Dierk's Lumber and Coal Company. They operate several large saw mills producing approximately thirty cars of yellow pine a day. Dierks asks anyone who is passing through Kansas City to be sure to look him up.

Your Secretary owes David McGrath humble apologies for not having noted his wedding in the last issue. David became the husband of Edith Marie Klein on the fourth of June and is now living at 15 Claremont Avenue, New York City.

Doc Sloan, I, has gone into business for himself at Davis Square, West Somerville, where he is the proprietor and manager of a retail hardware store. We also learn with pleasure that Doc is the proud father of a thirteen-month old boy.

Harold Watkins, I, is now located in North Adams, Mass., as Assistant Division Engineer, of the Boston & Maine Railroad. If the fellows would not be so tight with information regarding themselves, we might be able to keep more up-to-date as to important events. Send in some news; it sure is scarce.

Frederick J. Shepard, Jr., *Secretary*,
568 East First Street, South Boston, Mass.
D. J. McGrath, *Assistant Secretary*,
Technology Club of New York, 17 Gramercy Park, New York, N. Y.

'13

We have a prosperous list of births: Lydia Brewster, born on March 27, making Bill's fourth; Ida Elizabeth Norton on September 10, daughter of Effie Norton, whom we knew as Effie MacDonald; Evelyn Ann Lough on August 8; John R. Hopkins on April 30, 1923; Olive Ann Bridge, on August 26; Josephine Gage, on August 4; Thomas R. Blatchford, on July 4; and Richard Carlton Smith, on April 22, the fourth son of Allison P. Smith. Robert Steven Walton and Alberta Jean Brown are recent arrivals.

Ralph Thomas, VI, was married in Baltimore last April to Miss Rebekah Ober, and he is the single addition that we have to announce this time to the list of benedicts.—S. Crocker, Jr., conducts his own business as Naval Architect and Yacht Broker in Boston.—Bob Daggett, II, is supervising operation of Pacific Coast Plants of the Linde Air Products Company.—A. C. Brown, I, extends an invitation to thirteeners to stop off at Parsons, Kansas, and visit with him.—Norman Clark, X, is color man in charge of manufacturing at Pinco Papers, Camden, N. J., coated paper makers.—Dr. Kenny, our

1913 Continued

renowned scientist, announces merely a change of address which may be had upon application.—Mike Lewis, VII, contributes the following: "I am Assistant Engineer, in charge of Milk Sanitation, Bureau of Engineering, State Board of Health, Raleigh, N. C. Two kinds of cows down here. She-cows give Carnation Milk, the He-cows Bull Durham tobacco. Smell my pipe for confirmation."—George A. Taylor, II, is junior partner in a Lawrence, Mass., concern, dealers in doors and sashes.—J. M. Hastings, Jr., X, remarks: "Life Insurance is proving a highly satisfactory business. J. M., 3rd, strong and well and aged two. Completely eclipses Tech Show. Sic Transit Gloria."—If you have trouble selling your stuff, services or what not, it might be well to consult William Guild, II, who is Treasurer of Lewis and Guild, Inc., of Newark, Advertising Experts and Merchandising Specialists.—Read the following from Fred Rich, X, in his inimicable luncheon club style. This is a compliment, Fred, not a slam: "It sure is a long way from Chemical Engineering to 'Ladies Fashions,' but thither the road has led for F. D. R., who is now Sales Promotion Manager for Salt's Textile Co., New York, makers of velvets, satins, fine cloakings and upholstery materials. His definition of 'Bust Measurement' is 'The Morning After.'"—Bob Tuller, II, spent his vacation on Cape Cod this summer.—Alfred Katz, XIII, writes: "I am indeed sorry that my activities have been matter-of-fact and modest. At present I am living the life of the ordinary business man, importing fancy wool hose and golf equipment. Rather far afield for an engineer, but mighty interesting. We keep 'open house' at 230 Fifth Avenue, Room 1312, where Tech men may always consider themselves welcome."—George Richter, X, is busy at Berlin, N. H. He writes: "I still put in most of my time for the Brown Company. At present I am chiefly concerned with the development of a process for manufacturing a new fiber which we believe will revolutionize certain phases of the paper-making industry."—B. L. Cushing, II, contributes the following: "No news; still teaching at Mechanic Arts High, Boston; subject, Engineering, which means electricity, strength of materials and steam. I take the boys through the M. I. T. Labs annually, thus advertising the 'Stute as well as interesting the boys."—E. D. Yerby, I, is a First Lieutenant of Cavalry, U. S. A., stationed at Marquette, Mich.—Edgar Menderson, II, is busy selling automobiles in about one hundred and twenty-five middle counties.—C. E. Pearce, II, Professor of Machine Design, at Kansas State Agricultural College, gives us the following brief description of his summer: "I spent this summer in Washington, D. C., working for the Bureau of Public Roads in their Research Division, primarily on impact of trucks and its effect on concrete roads. My family and I drove both ways without tire trouble or rain. It is 1250 miles each way, and took us five and one-half days. We stopped at hotels. Total summer mileage about 4700."—Jimmy Russell, II, helps the cause with the following: "Hap Peck has passed the Bar requirements (No, Listerine, not the same as the schooners of old used to pass over.) J. Wellington Pinnock (otherwise known as Ding) is now successfully established in the auto accessory line. Our John Farwell was in the States this summer."—Albion Davis, I, notes: "Still alive and still watching the Mississippi which is not the quiet job some might think. Family and yours truly in good health and happy. Did a little unusual research work this spring measuring flow on crest of the Keokuk dam. Also did some original work regarding the pitting of hydraulic turbine runners. Got tired waiting for the outside world to call me forth so bought a home in Keokuk and may stick here a while longer if they can stand me."—Don Van Deusen, II, is working on the plans for an addition to his plant at Hudson, N. Y.—Bunny Brett, I, is in New York as Export Manager for the Dodge Manufacturing Corporation.—Ken Hamilton, II, recently made his debut as an author.—His article was in *Factory*.—Here's a pun for you from Raymond Braly: "I'll take care of the class notes if the class will take care of mine."—Jerry Fallon, III, reports his status as follows: "No intention of ignoring communications through failure to report; there's no news, that's all. Still in the steel business in Boston. Not married. Not engaged to be married."—Caleb C. Peirce, IV, writes: "I had the pleasure of seeing Eric Kebbon and Kenneth Franzheim in their respective offices in New York a short time ago. During August, I was entered in the Competition for the design of the New Triangle Club Theatre at Princeton, N. J., and was fortunate enough to win second place."—Gordon Taylor, XIV, who won all the medals offered at the Institute for number of questions asked, contributes the following: "Nothing exciting is taking place, am teaching College Physics for a living. Hope some day to discover some of the great secrets of the Universe, but as yet all are safe."—F. H. Achard, VI, writes: "Fired the Westinghouse Company on August 1, and have started in business as a sales engineer representing two or three good concerns, mainly electrical. For how long? Don't ask fool questions."—Stan Parker, III, tells me: "Am still in the steel business, still married, still childless, still have the same habits as of yore and honestly can't think of a bit of real news, but I'm always willing to start something."—Get this from Jim Beale boiling with indignation: "The next time you want to take my name in vain please use a sealed envelope. I hold you liable for any lawsuits or raids traceable to this action of yours."—Can you imagine Fred Lane, X, in the rough oil country? He writes: "I can at least say that since hearing from you last, my headquarters have been changed to Bartlesville, Okla., right in the

1913 Continued

heart of the oil country. Don't recall having seen a single thirteener since landing in this town two months ago. Still in the Federal Service with the Bureau of Mines, and hope any of the boys who get this way will run in to see me. Please change my address to Bureau of Mines, Bartlesville, Okla."—We hear very little from any of our Chinese classmates, so we are glad to have the following from Walter Merrill, II: "Just to let you know that I haven't forgotten you even though I may seem to have. Am still foolish enough to stick to that gloriously underpaid profession of Sanitary Engineering with the Massachusetts Department of Public Health. I wonder when some of the big engineers like Hazen, Whipple, Metcalf, Eddy, etc., will wake up and do their duty to their fellow engineers and help to lift us to the same scale financially as the lawyers and doctors? The millenium, I guess."—Manuel Font, II, writes from Porto Rico: "After spending four months in Belgium inspecting the 14,000 tons of C. I. pipe for the San Juan new water works, I got home about a month ago. I resigned my position as Engineer in charge of Public Improvements and have accepted a position as Assistant Architect, Government of Porto Rico. Recently, I was made an associate member of the American Society of Civil Engineering."—H. A. Burr, I, notes: "Am still Assistant Bridge Engineer for the State of Tennessee. Our office has increased from five men to fifteen, so you see we are busy. In August, I was in Boston and saw several of the fellows. The city looks good, especially the beaches, after being in a southern interior city for ten years."—Dick Cross is in England.—J. B. Woodward, II, notes: "I am just back from a vacation spent in old Boston. Ran into Mons Gagnon at the Steel Exposition. Same old Mons. He is making drills and reamers in Akron, Ohio. Yours truly is with the Newport News Shipbuilding and Dry Dock Company, as usual."—H. J. Von Rosenberg, IV, is Resident Engineer and Architect for a coal mining concern in New Mexico.—E. N. Taylor, XIV, notes: "Am now doing some research work for the Prest-Air Corporation. 'Prest-Air' is CO_2, vapor pressure 849 lbs., @ 70 F., so it is interesting stuff to handle."—H. D. Marsh, IV, writes: "Have located in Portland, Oregon, where I have a splendid suite of rooms in the Henry Building. A good start has been made with several good structures to my credit. I married Florence Eastman two years ago, a daughter of an old New England family. We expect to remain in Portland."

Fred D. Murdock, *Secretary*,
30 Bartlett Avenue, Arlington, Mass.

'14

As these notes have to be written before those for the November issue have been published it is not to be expected that your Secretary's urgent appeal for a letter from each of you has brought results. Next month, however, will see a long column of notes with the arrival of your letters. Fail not!

The Alumni Office is bombarding the class secretaries with data on the standing of their respective classes. This standing is based on the percentage of the class subscribing for The Review. When these letters come in, your Secretary feels like Abou Ben Adam — his name leads all the rest. On a list of fifty-seven classes 1914 stands forty-first. Words fail. Only one Fourteener in every six is interested enough in Technology affairs to pay annual dues to the Alumni Association and to receive the official publication, The Technology Review.

Every once in a while we hear of someone courageous enough to pull up the last stakes and strike out for the wild country. Gus True is the latest victim. Arlington, Mass., has been home and shop to him, but now, alas. The good fathers of the town decided that the True homestead and adjacent land occupied by the Crane Puller Co., of which Gus is General Manager, would make a fine site for a school. Gus has packed up his family and his company and departed for Greenfield, Mass., where among the foothills of the Berkshires he hopes he will not be disturbed.

H. A. Affel never writes for publication, to the Class Secretary at least, but his name frequently appears in the technical journals. The last announcement was that of another patent issued to him. This one relates to radio signaling and methods of eliminating static interference. Affel, who is with the A. T. & T. Co. in New York, has made many contributions to communication methods, particularly on carrier frequency telephony, or as it is popularly known, wired wireless.

Charlie Thompson, who is with the Mine and Smelter Supply Co. at El Paso, is taking an extensive trip through Mexico. Last year he spent considerable time in the gold mining districts of Canada. C. F.'s specialty is selling mine supplies, specializing in Marcy grinding mills. Thompson finds his Canadian and Mexican trips attractive but regrets that his work keeps him away from his wife and two girls so much.

In the last issue of *The Open Road* there was a four-page feature article on Don Douglas and his 'Round the World Airships. Certainly Fourteen has some men to be well proud of.

H. B. Richmond, *Secretary*,
100 Gray Street, Arlington, Mass.
George K. Perley, *Assistant Secretary*,
45 Hill Side Terrace, Belmont, Mass.

'15

No notes have been received by The Review Editors from the secretaries of this class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to Frank P. Scully, Secretary, at 118 First Street, East Cambridge, Mass., or Howard C. Thomas, Assistant Secretary, 100 Floral Street, Newton Highlands, Mass.

'16

Unless some of you men answer the letters that were sent you, 1916 will have no notes for the next issue of The Review. From the few letters I have received, we have the following news.

J. H. Murdough, who has been out West for the past three years, is now located here in Boston and writes as follows: "We have moved back East for awhile and I am working as a sales-engineer for the Truscon Steel Co., in Boston. There are three of us in the family, my son being quite a husky little fellow of two years. There is not much that I can write of interest concerning myself.

"Of course, like all of us, I am getting older and I guess the only distinction that I can claim due to the passing years is that I no longer need a comb. I can comb my hair with a towel and it is a question with me when washing my face just where I should stop. I have come in contact with a few 1916 men in the past few months. Farhi, Ellsworth, Kerstein, Krigger, Kleineit are, or have been working for the state. Holmberg is an instructor at Tufts and has been taking extra work at Harvard. I understand Berrigan and McSweeney are both in for themselves as contractors. McSweeney also is running a granite quarry. Saw G. P. Allen the other day; he is back from Florida and running a radio magazine. Saw Professor Alec Bresth when he was back at the Institute taking some advanced work. Ullian was on from Detroit a month or two ago. He has developed quite a business as a legal surveyor out there. Henry Morse has been East working up an oil furnace which he is interested in. Red Russel still enjoys the quiet seclusion of his boiler factory and I guess if he ultimately can get hold of a real good second hand automobile he will be satisfied. Jack Burbank was over from New

1916 Continued

York this spring. He and Dick Ahearn are carrying a load for the Barney Ahlers Corporation in New York."

Mr. and Mrs. William Wraith announced the marriage of their daughter, Erma Mabel, to Mr. Carl Eberhard Carstens, on Thursday the twenty-sixth of June, 1924. They will be at home after the first of August at 500 Main Street, Anaconda, Mont.

H. Gfroerer, who is now located in Detroit with the Cadillac Automobile Co., sends us a short note as follows: "Darn good work on your part for 1916. No real news to speak of at this time here in Detroit. Saw Chuck Loomis a few weeks ago and have heard that Philip Baker has just returned from an extended trip to California."

Trinity College alumnæ and alumni of the Massachusetts Institute of Technology with friends throughout the East and South are extending felicitations to Miss Eleanor P. Skahan and Mr. John J. Hickey, whose auspicious marriage took place at the Church of the Sacred Heart, Watertown. After a sojourn at the Virginia Hot Springs, they will make their home on Stoneleigh Road, Watertown.

Henry Morse who has been out in Wisconsin writes: "Am very much ashamed not to have written in answer to your earlier letters. I expect to be in Boston soon and intend to look you up. My address while there will be 35 Payson Road, Belmont." Henry now has another son, Thomas S., born in 1924.

Edward Weissback is still located in Cincinnati with the Richardson Co., Lockland, Ohio.—I have written to several members of the class asking whether they would prefer to have our next reunion in 1925 with the All-Technology Reunion and to date I have received three answers, two in favor of 1925 and one for 1926. Will some of you fellows please let us know which year you prefer? Once again, unless 1916 wakes up, you will find The Review without any notes of the class, and then I will get letters from some of you stating that they were sorry not to see any notes for 1916. It's up to you to write to me if you want news every month. Don't forget, Write to Barker.

D. N. Barker, *Secretary*,
14 Marathon Street, Arlington, Mass.

'17

"Thursday, October 9, may be expected to prove a Red Letter Day in the careers of many young men of Bridgeport and vicinity." To avoid any taint of bias this quotation is taken from another authority, who presumably has not the honor to be a classmate of the Dean of the school which supplied the ink for this red letter day. In brief, the city of Bridgeport, Conn., has established a new Engineering Institute, and has installed at its head, Art Keating.

The new Institute is formed on a policy that to the dyed-in-the-wool brown bagger must appear Utopian, for, to quote again, "It is recognized that history, language, shop practice and similar subjects could be omitted without impairing the technical value. . . . The Institute presents, therefore, a basic course stripped of non-essentials."

Listed as the faculty of this new evening school are nine men, all from representative technical institutions, and with positions that indicate success in their professions. There is, for instance, L. A. Hoffman, Assistant Mechanical Superintendent of the American Tube & Stamping Company. We wait patiently for further word.

P. N. Rowe is back from India, but is still with the Rogers Pyatt Shellac Company. During his two years in India he was engaged in buying and shipping shellac, and in this work he traveled in jungle territory ordinarily visited only by natives. Because of the thorough knowledge of shellac which he has acquired he plans to stay in the business, probably in this country.

F. L. Ford was married on September 20. Mrs. Ford was formerly Miss Marion Ray Brigham of Brookline, and is a graduate of Smith College, 1924. Wendell B. Ford was best man. Newspaper accounts noted that the groom was a research aeronautical engineer at McCook Field during the War, and that he is now engaged in architectural work in Boston.

James C. Flaherty has been awarded the grand prize given by the Boston Architectural Club at its annual art exhibit, winning over fifty entrants including architects from cities and towns throughout the country. He used water colors to present the portico of the Old Massachusetts General Hospital. The Architectural Club has acquired the prize sketch and it will be on exhibition for two weeks before being added to the club's collection. Flaherty has been connected with architectural firms in Boston, but is now conducting a business of his own.

Mr. and Mrs. Stanley S. Chisholm announce that on October 3, a son, Henry, M. I. T. 1946, was born. Congratulations.

Tom Hannah dropped in last month. He is with the Parkhill Manufacturing Company at Fitchburg, Mass., applying the science of civil engineering to the dyeing operations of the textile industry.

Raymond S. Stevens, *Secretary*,
30 Charles River Road, Cambridge, Mass.

'18

No notes have been received by The Review Editors from the secretaries of this class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to P. W. Carr, Secretary, 400 Charles River Road, Cambridge A, Mass.

'19

Are you aware that out of the 537 members of our class listed in the Alumni Office, only 86 have paid alumni dues this year? This is only 16% and puts us down in the 49th place in the list. Can't we make a better showing than that?

This month a letter is also to be sent out calling your attention to the fact that it is time for the payment of class dues. Use the back of the letter for notes to Adaline about yourself!

Early in the month (October 9 to be exact) Max Untersee, IV, deserted the ranks of the bachelors and was married to Miss Eleanor Alexander in New York City. Francis Coyne and yours truly had the pleasure of attending and speeding them on their way to a Maine honeymoon. On the same trip I dropped in to see Don Way and he sends greetings to you all.

The New Bedford *Evening Standard* for October 2 contains an interesting account of the wedding of Percy Ames and Miss Mary A. Hume of New Bedford, Mass. Ames is connected with the New Bedford Customs House in the capacity of Customs Inspector.

Fraser M. Moffat, Jr., and Miss Marion Harding were married on October 5 at Chestnut Hill, Mass. They will make their home at South Orange, N. J.

Walter J. Creedon is to supervise the construction of the five-million dollar blast furnace plant for the Mystic Iron Works at Everett, Mass. Creedon is with the Aberthaw Construction Co., and will act as General Superintendent of Construction.

Charles B. Maloy, II, arrived in New York on the *Majestic* on September 23, after a three-month trip to Austria, England, Spain, and France. While in Switzerland he attended the opening session of the League of Nations. Maloy is President of the Mississippi Valley Electric Company of St. Louis, dealing in general electric supplies.

Paul F. Swasey, *Secretary*,
Box 1486, Boston, Mass.

'20

No notes have been received by The Review Editors from the secretaries of this class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to Kenneth F. Akers, Secretary, 54 Dwight Street, Brookline, Mass.

'21

No notes have been received by The Review Editors from the secretaries of this class for inclusion in the December issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to Raymond A. St. Laurent, Secretary, at 431 Oliver Street, Whiting, Indiana, or Carole A. Clarke, Assistant Secretary, Northern Electric Co., Ltd., 121 Shearer Street, Montreal, Que.

Course II

'22

Course II unites with the Class of '22 in its expression of sympathy to Mrs. Marmon at the death of her husband and our classmate, Franklin Hall Marmon, son of Walter C. Marmon, prominent automobile manufacturer. Franklin was an ideal student, and an excellent friend, respected for his industry as well as liked because of his good fellowship. He was killed at Avon, Ind., on October 11, returning from a western trip when he was blinded at night by the headlights of an oncoming car. His car skidded and overturned, pinning him beneath. He leaves his wife and a baby daughter. It is indeed with regret that we record the death of our esteemed classmate.

The summer has been replete with weddings of the boys who do not know better, and of regrets from the know-nothings expressed toward the boys who know it all. Cupid surely has been raising havoc with our course. When a fellow like Frank Conners comes out in print, (I mean engraving) and states that he has married Miss Lucy Ann Kennedy, there is nothing else for us to do but wish Mrs. Conners (Miss Kennedy) the best of happiness. The whole class will hereby go on record as stating that she picked a swell husband. That's what we all think of Frank and we certainly congratulate him.

Walter Croft and Miss Florence May Connell, of Needham, Mass., celebrated Columbus Day correctly. Walter announced his engagement at Commencement and now is a full-fledged husband, going home every night to his pipe, slippers and charming bride (I know whereof I speak since I knew Florence in Walter's courting days). The happy couple will be at home at 47 Howlett Street, Roslindale, after November 1. Walter is still master-mechanic at T. G. Plant's Shoe Factory, in Jamaica Plain, seeing to it that 8,000 pair of shoes are turned out daily.

Among those "living happily ever after" may be cited, Chuck Comey, Bob Hallock, Al Kroog with his set of twins, Charlie McGrady, way out in Casper, Wyo., Johnnie Molinar, Randy Meyers in Seattle, Wash., Pete Perkins, Danny Reed with his family, Vin Ring with a new addition to the ever expanding ring, Lou Boggs, and Tommy West. These boys are all strong exponents of the double life. They term us chaps, who are having a hard time supporting ourselves, foolish, and are getting away with it. I move that a tug-of-war be arranged at the Five-year Reunion, and the married men be allowed to enlist the help of their families on their end of the rope. In that event I'm forced to bet on the above-mentioned exponents of the double life.

We have a sort of a hunch that there should be lots of other esteemed members of the course mentioned in the preceding paragraph, but they are bashful. Look at fellows like Charlie Burke. If he is not married yet, the Course Secretary loses a bet.

Ebenezer Clemens blew into Hartford last summer in a Dodge coupé and got hooked to drive the Crew Levick Company auditor back to New York with him. Eb is master mechanic at the National Lead Factory, at 125 Marshall Street, Brooklyn. His home address is 157 Hick Street, Brooklyn.—All that can be found out as to the whereabouts of Howard Duge is that he works for Thompson Starrett Co., Long Island City. Anything more you want to tell the boys, Duge?—Benny Cooper was seen on the streets of Hartford recently. He is spreading the good news for Meade-Morrison Co., East Boston, Mass. We spent an enjoyable evening hashing over who was married and who ought to be.

George Dyer is back in Boston earning his daily bread. He sets out from Everett, Mass., for somewhere early mornings, but nobody knows what he does during the day. Nights — well, that's another story — Ham Hammond, Whitlock Coil Pipe Co., Hartford, has a story he wishes to spread abroad. Ham is going to marry the sweetest girl in captivity quite soon. I dropped over to see him and office flappers sure do get the cold shoulder from him. Best of luck, Ham!—Bill Hyland was away most of the summer vacationing at the expense of the New England Power Co., Worcester, Mass. Bill is construction engineer on new work up Vermont way.—Andy

1922 Continued

LaPenta is straightening out the bristles on Fuller Brushes here in Hartford. He is very seldom seen on the streets after eight o'clock, which is a good sign that he is getting along in the world. Hartford does boast of plenty of representation from Course II.—Walter Kirley is here temporarily with the Underwriters Laboratories. He is going back to Boston with the same outfit on November 1.—Ed Schwamb is now a partner in the Cambridge Oldsmobile Co., 93 Mt. Auburn Street, Cambridge. Ed has been with the Boston Oldsmobile Co., and is now branching out for himself. Note thus, all you fellows who are thinking of acquiring a new means of four-wheeled transportation. Best of luck, Ed, and no split commissions for free advertising.—Art Wasserman is a neighbor of all the Hartford clan. He is living at 38 Lincoln Avenue, Meriden, Conn. Tommy Thomson has broken into the Standard Oil Co., So. Norwalk, Conn.—Cliff Clifford lives in the vicinity of the Evansville Tool Works, Evansville, Ind.

The Technology Club of New York has a new house member in the person of Dick Aaron. New York papers please copy.—The Standard Oil Company of India must have gone broke or else Web Maschal has a case of yellow fever. From last advices from the American consul at Calcutta, Web was seen bathing in the Ganges in an effort to cure a case of rheumatism. How come, Web?

Ham Williams was seen by a reporter in the lobby of the Bond Hotel in July. At that interview he had just returned from a European survey of business and political conditions. Ham is with the Gilbert Clock Company, Winsted, Conn., and was in Europe the best part of the summer. We will back Ham any day against German timepiece competition. If it is any tougher to sell clocks in Germany or England than it is to sell oil and gasoline in Hartford the Course Secretary would like to sympathize with Ham.—Van Gieson has settled down to the quiet life. He only gets to Hartford every other day now from Springfield. The best that can be said for Van is that he claims that Crew Levick motor oil took the slap out of one of the pistons of his new 1919 Buick roadster. If he had some of our transmission grease in the rear end last week he would not have lost a wheel.

A grave omission has been made in the early part of this report. Linc Vaughn was married on September 17 in Centerdale, R. I. Miss Dorothy Westervelt Bennett was the smiling bride, and Emmy Emerson the downtrodden best man.

The Course Secretary wishes to announce a hasty change of address. Please address all mail, other than bills, to Box 346, Hartford, Conn., c/o Crew Levick Company. This big-hearted organization has recently trusted the above-mentioned nonentity with the management of a second-hand gasoline and oil bulk distribution. Since July the Gensec and the Course-Sec have not been able to swap stories. Eric must have some new ones by now. Come on now, fellows, write in even if it is only to say you are married. The rest of the boys are anxious to hear of your doings just as you like to hear of their whereabouts. Why not make it a fifty-fifty proposition and squander two cents? The Review is a big book and there is room for all that you send in. Let's have it hot.

J. E. Sallaway, *Secretary*,
Box 346, Hartford, Conn.

Course III

Attention Miners! Where are you and what are you doing? Are you engaged, married and how many children have you? The Secretary would like to hear from each and everyone in Course III

1922 Continued

and XII. If you have no particular news that would be of interest to your classmates, please send us your address anyway. There ought to be much news of interest, where you have spread out over the world.

As I have only been the goat a few weeks I haven't much of a kick yet and so I beg your forgiveness if there is not much in the column this time. By the time the next publication of The Review comes out I hope to have much news from the fellows.

For the starter the following memoranda from Professor Locke gives information of some of the fellows.

A recent letter from F. J. Wilson states that he and P. Reiche are rooming together at 2538 Fulton Street, Berkeley, Calif., and are both taking graduate work at the University of California for a Master's Degree in Geology. Wilson left Ray, Ariz., last year and went to Berkeley to take several courses in the art and music department. He passed a most pleasant semester taking courses in harmony, charcoal figure drawing, and in esthetics and doing some orchestra work and finally attending some lectures on the history of art. He mixed these courses with studies in petroleum engineering and advanced mineralogy. He and Reiche were burned out in the Berkeley fire and were thus brought into direct contact with Dean Probert of the College of Mines who persuaded them to work for a Master's Degree.

Wilson reported that Wells was in Jerome, Ariz., and that G. R. Hopkins was married and living at La Habra near Los Angeles.

Paul O'Brien is with the Aluminum Company of America at their Badin, N. C., plant, and writes that he expects to take his vacation about Christmas time and will spend it in Boston, although he anticipates that it will be a rather cool experience for one who has lived in the South for two years. He reports that he is coming to like the South more and more and is already a strong rooter for North Carolina, which he believes is going to make rapid industrial progress in the future, although the labor problem is not entirely satisfactory. The chief forms of diversion at Badin are tennis, basketball, and week-ending. In the basketball, a departmental league has made things very interesting. The most recent attraction was a tennis tournament. The week-ending consists of automobile trips in his Ford roadster and in this way he has covered the state pretty well, the roads being very good, due to the recent progressive road building campaign of the state.

A couple of clippings received through the mail from Secretary Hodgins give information concerning some of the graduates. M. E. Hurst has recently joined the Ohio State University Faculty as Instructor in geology. R. W. Smith recently gave an illustrated lecture to the general geology class at Vanderbilt University. Smith is Assistant State Geologist of Tennessee. He is working on the phosphate fields and geologists will soon be getting some interesting reports from him.

I received a letter from Alden Erikson this week. He is working in the Open Hearth Department of a steel mill in Midland, Pa. His address is 753 Ohio Avenue, Midland, Pa., and he would be glad to hear from his classmates.

Since graduating in '22 I have heard several times from George Butler the mighty wrestler. First he went out to the gold fields in California and then to Mexico. George has had some thrilling experiences in connection with his work in Mexico. In one instance some revolutionists confiscated his horses and when they didn't take them the federals did. I hope that before the next issue goes to press I shall have some more news from George.

This summer I had the pleasure of seeing Ramsay in Chicago for a few minutes. He is still with the Illinois Steel Co., in the Blast Furnace Department. He likes Chicago very much. He and some other Tech men are keeping bachelor quarters.

I am still with the General Electric Co., at Everett, and am located in the Melting Department.

Roger D. Carver, *Secretary*,
65 Thetford Avenue, Dorchester, Mass.

Course VI

The following represents the activities of Course VI for the past summer.

On June 4, Tommy F. Williams and Miss F. Rita Kelley, a daughter of Mr. and Mrs. John W. Kelley of 30 Cleveland Street, Arlington, were married. The ceremony was performed at St. Agnes' Church, Arlington, at a nuptial mass, the mass being celebrated and the ceremony performed by the pastor, the Reverend Matthew J. Flaherty. Mr. and Mrs. Tommy Williams will make their home at Springfield, Mass., where he is an assistant traffic manager for the New England Telephone Company.

From the Cambridge *Tribune:* "Mrs. G. E. Farmer, of Brattle Street, arrived in Los Angeles, California, on Monday, to attend the wedding of her son, G. Everett Farmer, M. I. T., '22, which will

Professional Cards

A Directory of Technology Graduates and Other Qualified Engineers

1922 Continued

take place on Monday, July 28. Clarence Row, M. I. T. '23, will be best man at the wedding.

On August 30, Joe Cook married Miss Helen McCarthy of Arlington. Joe shows every evidence of being happily married and now makes his home at Roxbury, Mass.

To the above new class of benedicts the course extends its blessings.

Fearing Pratt, *Secretary*,
120 Main Street, Hingham, Mass.

Courses VIII and IX

Once more the class notes season is upon us and I hope that every Eight and Niner will brush the summer's dust away to reveal his whereabouts and standing on the proverbial ladder of success. Please note the address below and should anybody fail to receive a note from me, kindly come forward with your own story. Everybody is just as anxious to hear from you as you are to hear from them.

Don Carpenter is in Wilkes-Barre, where he and Heinie Horn, (who, by the way, is raising a thriving family) are guiding the interests of the B. G. Carpenter Co. Don reports an auto trip of last summer during which he visited Joe Godfrey in Kresskill, N. J., Cliff Gayley at the Chrome Steel Company in Carteret, N. J., and Ernie May in Wilmington, Del.

It appears that Charlie Rudderham is establishing one of the Ross Company stores in Wilkes-Barre. According to Don, he should meet with tremendous success, judging from his selection of clerks.

Emil Taylor married Miss Dorothy Teague of Lexington, last July. They are living in North Lexington, where Emil finds commuting to business in Boston most convenient.

T. H. Gill, *Secretary*,
520 East State Street, Trenton, N. J.
Eric F. Hodgins, *General Secretary*,
Room 3–205, M. I. T., Cambridge A, Mass.

'23

Since the notes for the November issue went to press, the Class of 1923 has been as silent as a flock of clams. The mail that has piled up on your Gensec's desk is all but nil. Of course we realize that modesty silences a number of our classmates, but we happen to know that all are not blessed with this virtue.

Let's make up for the present dearth of notes next month. The only way to do this is to drop a line to your Course Secretary! There is still room in our notes for the fellows that aren't married or engaged yet. Let's hear about the new job, etc.

Course I

News has come in but slowly during the summer. This may be due to the marked lack of initiative exhibited by the Secretary, to a corresponding lack of initiative on the part of the class, or to the fact that there is little important news to record. As there are no startling items such as engagements, marriages, births, or divorces which have come to our attention, we will turn to the record of changes of position.

Ollie Hooper wrote early to be sure to get his name in print. He is engaged in hydraulic computations and design for the J. G. White Engineering Corporation in New York.—Si Rice is still spilling ink with the tracing squad in the Boston office of Stone & Webster.—Alex Stewart writes from Denver that he is working for J. H. Fuertes on the Denver Water Supply. The job is a new filtration plant for the city.

Art Stuckey wrote last June from Columbus, Ga., where he and Spike Evans are working for Stone & Webster on a hydro-electric project on the Chattahoochee River. They seemed to be much better situated than when on the Alabama power job.—Kid Heiss dropped into the Institute a few days ago while on his vacation. He is still located with the telephone people in Washington.

Sailor Dresel and the Secretary assisted at camp this summer. Sailor is back at the 'Stute this fall and has volunteered to take over this job while I take a little hop to England. May Allah be with him. . . Signed, J. M. Robbins.

When in doubt, travel, and so Jim Robbins sailed for England on the 18th of October aboard the *Majestic*. Before going he handed me a bunch of cards covered with well familiar names and doubtful addresses and said, "Here is some stuff and be sure to get it in by the 25th."

And so I picked my old running mate Spike to send along a little dope. His letter reads in part: "And by the middle of next month we expect to be honored with the presence of one R. E. Rubins, of Dartmouth, M. I. T., and Minneapolis, late of Puerto Barrios, Guatemala, C. A., if all goes well. And Pomy is at Wilson Dam, where, the last we heard, he was studying to take a civil service exam in electrical engineering."

I wrote to A. A. Kenney, supposedly in Chicago with A. Seels, and in a few days Abe walked in on me at the 'Stute. He had been taken ill in the windy city several months ago and lost thirty pounds; came home and put on forty. All Abe needs now is a job.

J. M. Robbins, *Secretary*,
42 Oak Street, Belmont, Mass.
R. R. Dresel, *Acting Secretary*,
53 Brook Street, Brookline, Mass.

Course III

'24

Within the short space of the summer months, most of our worthy classmates have launched forth in their professional careers. A majority of said classmates have succeeded in putting much distance between themselves and Boston, a convincing proof that they have no fear of the great open spaces, and that they are admirably equipped to carry the gospel of Technology to the far ends of the earth.

Unfortunately the writer has not yet established his lines of communication. However, through the generosity of Professor Locke, who placed at my command divers manuscripts, material for this issue was not lacking. But all of you may expect to hear from yours truly, personally, within a month at the very latest. If the spirit moves you, and we hope it will, communications in advance of the personal invitation to contribute to these notes will be received with much rejoicing.

Coming forthwith to the news from our boys, it is only fitting and proper that we give our attention first to that versatile pair, Holmes and Lindsey, who were the earliest of our colleagues to get on location. George and Al motored from Boston to Bingham Canyon, Utah, taking jobs there with the Utah-Apex Mining Co.

Here is their letter written to Professor Locke: "The trip from Boston to Bingham was a great success, with only a few minor accidents, concerning tires, valves, etc. The first stop was at Washington, D. C., where we spent a day and a night, leaving the next morning for Columbus, Ohio. The trip over the Cumberland Mountains was an exceedingly beautiful one as well as thrilling, having had, then, our first experience in mountain driving. Passing through Pennsylvania, we had the good fortune to see several oil wells in operation, and to observe the operations at a few of the coal mines and coke ovens. We spent the week-end at Columbus, where we visited the American Rolling Mill Co., and were cordially entertained there. At Dayton, Ohio, we went over the Conservation Project in which we were mighty interested. We regret that we could not stop off at the University of Illinois, as we ran behind our schedule. Missouri mud loomed up before us, and the passage through it occasioned many words of profanity as it took two long, tedious, and aggravating days to get through that forlorn country. Paved roads are now under construction which in time will remedy this great defect in transcontinental driving. After passing through these claypits of Missouri, we entered into the baking oven prairies of Kansas, where the daytime temperature ranged above 100 degrees F., and at night all the blankets with us could not keep us warm. The six hundred-mile drive through that state was more or less monotonous, due to the topographical features of the country and the unvarying scenic effects.

"The next stop of any length was at Denver, Colo., where we rested up from Friday night to Monday morning. At this time we called upon Mr. Frank Shepard at the U. S. Mint, where we were again cordially received. The entire Monday morning he gave to us in discussion of our trip and future work, followed by an inspection of the Mint. Letters of introduction were given to us by him as well as many helpful suggestions.

"The trip over the Rocky Mountains, from Colorado Springs, through Ute Pass and down the Royal Gorge to Glenwood Springs, was very interesting. Never had such natural beauty been observed by either of us and we consider that to have been the most beautiful part of the trip. Making up time prevented our stopping at Cripple Creek, but we spent a few hours in looking over Leadville. Not many of the plants were in operation there; only a few mines and the Arkansas Valley Smelter. We spent the night at a ranch at Rangely, Colo., and left early the next morning for Salt Lake City, arriving there late on the night of the third of July. The next day dawned on the end of our trip and we arrived at the Utah-Apex Mine at twelve o'clock on the Fourth of July.

"Two months were spent by us learning the principles of mining, from mucking to chuck tender on a water Leyner. One week, however, was spent on the surface surveying, as assistants to Mr. Frank Anderson, the Mineral Lands Surveyor. The first part of last month we were taken out of the mine, and put on special work in the office and Engineering Staff under the supervision of Mr. Joe Norden, Superintendent. We are still occupying the position which is one of great experience and interest.

1924 Continued

"We are living at Highland Boy, a small settlement above the mine, and have obtained here excellent board and room with which we are entirely satisfied. A mighty beautiful country to live in, and we are both happy and contented here."

It is quite obvious that the Utah-Apex Mining Co. is just entering upon a new era of prosperity with our George and Al firmly entrenched on the Engineering Staff. Their address is c/o Utah-Apex Mining Co., Bingham Canyon, Utah. They also state that Don Fife is working for the same company, although he has not been heard from directly.

Having put our minds at rest concerning two members of the course, who are "both happy and contented," our interest does not stop here.

Charlie MacBrayne, late of Tech Show 1924, more recently of the Illinois Zinc Co., seems to have kept tabs on several miners. He writes (in a letter to George Neitlich) of Don Kennedy who may be reached at the American Smelting and Refining Co., Velardena, Durango, Mexico. Don, it seems, is an Assistant Engineer and has a horse of his own, not to mention other special privileges which go with a job in Mexico. Hughie Craigie joined the pilgrimage to Mexico but is somewhat removed from Don; he gets his mail c/o American Smelting & Refining Co., Santa Barbara, Chihuahua, Mexico. Ray Meade, Charlie says, is in Detroit, Mich., with the Semet-Solvay Co.

Charlie, himself, is the mainstay of the Research Department at the Illinois Zinc Co. He gives his address as 745 Ninth Street, La Salle, Ill.

Westie Weston, seeking a change of climate, strayed from the beaten path as far as Jerome, Ariz., where he is working for the United Verde Copper Co. Address him: Box 1341, Jerome, Ariz.

As Course Secretary it is my painful duty to record the first desertion from professional ranks; however, our loss is the Army's gain. Scoop Reinhardt finally accepted a commission as Second Lieutenant, Corps of Engineers, and may be addressed c/o 13th Engineers, U. S. A., Fort Humphreys, Va.

Nor is this all. A second desertion which may only prove temporary is that of George Neitlich. George, after selling magazine subscriptions all summer, is now studying the insurance business with a view to entering same. His home address is 78 Intervale Street, Roxbury, Mass.

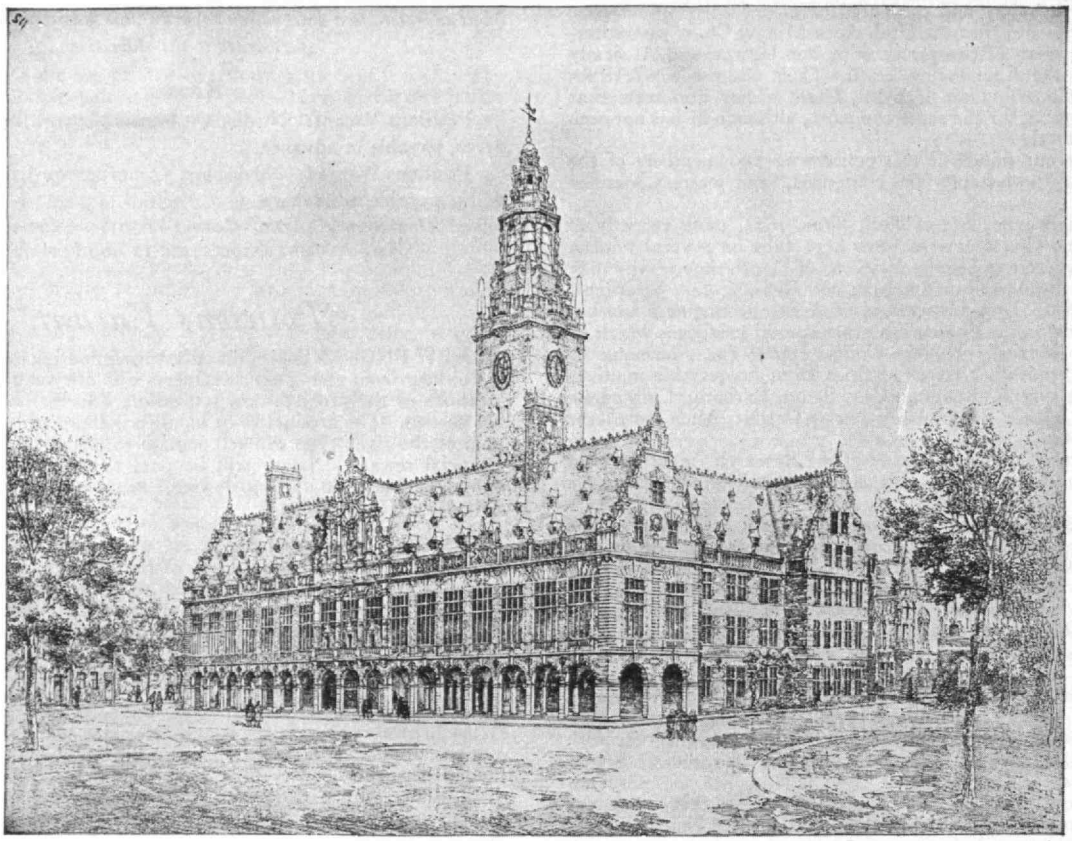
Transcontinental travel a la covered wagon (in this day motor drawn) has two more exponents in Don Murdock and Frank Warren. After summer camp, where Don was a member of the instructing staff, they set out for Los Angeles. But let Don tell it (from a letter to Professor Locke). "Frank Warren and a friend of his left North Adams, Mass., in a Ford sedan on September 21 and I joined them in St. Louis on September 28 and drove out here. I am very glad that my first trip across the country was in an auto because we could see much more than one can from a train. We followed the Santa Fé trail and arrived in Los Angeles on October 11. The only side trip we made was up to the Grand Canyon because we thought we had better get out here and get to work as soon as possible. We saw some mining activities around Oatman, Ariz. We are to start work in the construction gang and will be located at Los Angeles for the present, but expect we will be moved about more or less. As we have not done any work as yet, I can't say much about it." They may be reached at 2927 South Hoover Street, Los Angeles, Calif. With two such keen students of the oil game on the job, there will be noticeable from this day hence, a gradual and complete restoration of public confidence in the petroleum industry, which has been at a low ebb ever since the Teapot Dome affair.

Weston Pratt has been busily engaged all summer here at the Institute, and will continue during the present academic year, as Assistant in Metallography in the Mechanical Department.—Lowell Tatman has not been heard from directly but it is rumored that he will eventually locate in Buffalo, N. Y., with an iron and steel firm. His home address is 258 Poland Avenue, Struthers, Ohio.—The Sinclair Oil & Gas Co., of Covington, Okla., was extremely fortunate in securing the services of our Basil Zavoico. Basil has not been heard from at much length. Let us hope that he will break his silence in the near future.

A familiar face at the Institute this fall was that of del Prado who has almost clinched his sheepskin; two weeks more will see him through. He plans to sail from Vancouver, British Columbia, around the latter part of November for his home in the Philippine Islands. His address will appear later.

This exhausts the present available material. It is realized that omissions have been made, but such omissions will be rectified in the next set of notes. Any requests for information will be welcomed by your Secretary and given every attention. Let me hear from you, one and all.

C. A. Frank, Jr., *Secretary*,
380 Commonwealth Avenue, Boston, Mass.
C. R. MacBrayne, *Assistant Secretary*,
745 Ninth Street, La Salle, Ill.
H. G. Donovan, *Acting General Secretary*,
Box 385, Niagara, Wis.



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For the announcement of courses offered in the Summer Session, ask for *Bulletin C.*

For information on Advanced Study and Research, ask for *Bulletin D.*

For the report of the President and the Treasurer, ask for *Bulletin E.*

For a popularly written explanation of Engineering Course content, ask for *Bulletin Y.*

For these bulletins, or for any other information, address

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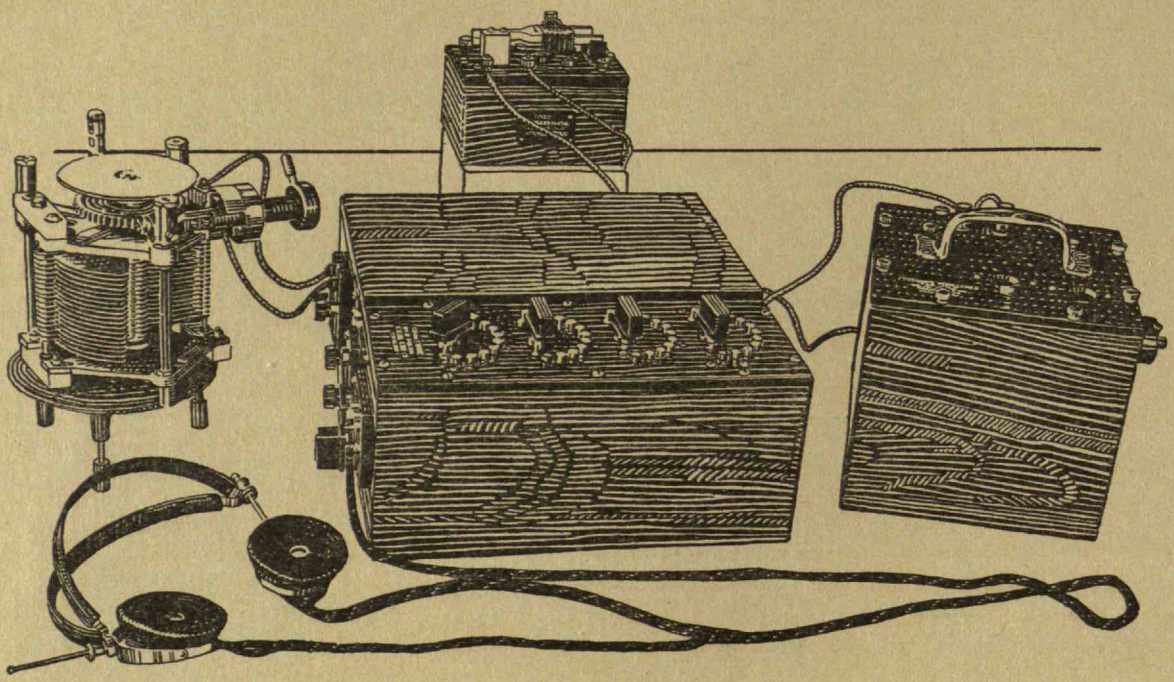

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